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EPSON CONNECTION

Devoted exclusively to Epson Computer users.

OCTOBER 1984

3

GENEVA™ PX-8™

SemiDisk:™

an advanced disk emulator for the QX-10.

You've Seen Your QX-10 Run...

NOW WATCH IT FLY!

SEMIDISK

SemiDisk Systems, Inc.
P.O. Box GG
Beaverton, Oregon 97075
503-642-3100

...510 for CP... ...iSpool... ...nd 503-775-4838 for CBBS/PCS, both SemiDisk-equipped computer bulletin boards (300/1200 baud). ...of SemiDisk Systems.

October 1984

FEATURES

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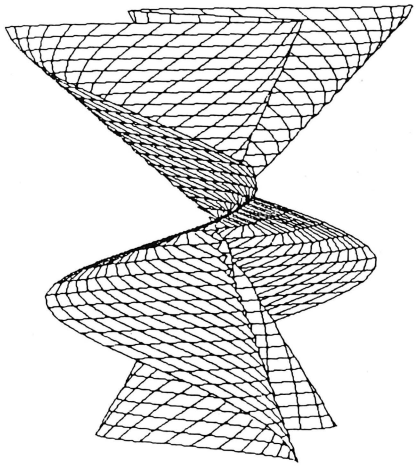
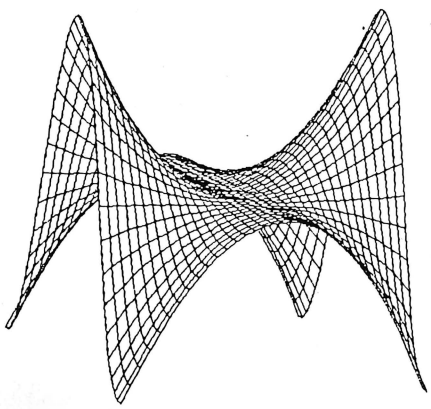
From Your Editor...

I am looking forward to the coming months with baited breath as I imagine are most Epson users. The promise of Valdocs 2.0 for the fall season is upon us, a new more compatible MS-DOS board is close, and seems to be running Framework. Framework and Symphony are building a great deal of excitement in the software industry. They are two of the most complete and exciting Integrated Software packages available for MS-DOS systems. The new Epson portable Geneva PX-8 computer is a joy. In this issue we have dedicated a great deal of space exploring the PX-8. The compatibility with the QX-10, the ability to run CP/M programs, and compatibility with HX-20 peripherals demonstrates a wise move on the part of Epson for this new portable computer. This industry has been growing so fast, we seem to be outdated when we buy equipment. This has certainly been true in other fields involving electronics. After the arrival of a VHS video tape deck, now comes HIFI VHS, and Stereo Beta. We can expect our electronic equipment to be improved upon before it even makes it into the marketplace. Some companies wait till sufficient units are sold on the market, and then introduce an entirely better version, for more money, and which requires purchase of entirely different support software, hardware, etc. It seems to me the wise and more consumer conscious company will make sure that we can upgrade our systems, or still make use of various parts of our units. Epson certainly seems to be providing us with not only upgrades, like release B of CP/M, but also compatible products. For a company new into the computer market, I find that their products are not only attractive, and well engineered, but also well designed.

What about the future? In l king at various developments und the world, I get the clear ling we are headi g to more mpatibility bet n systems and a eat flexibil pplication. Some th apan ani s have been nc rati

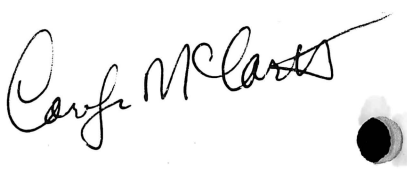


compatibility in their new computers. They have developed MSX microcomputers. The operating system has been developed by Microsoft, and is compatible with CP/M at the system code level. This means that you can run any CP/M program on any MSX computer. It is also compatible with MS-DOS at a file level. This means the user can interchange data between the two systems. So we can see some high level compatibility approaching in the industry. We can also see greatly enhanced and integrated software, which is becoming easier and easier to use. A future level, broached first by Texas Instruments in synthesized speech chips, will certainly be the development of the verbal interface with computers, and programs. Currently there are machines which digitize your voice messages from the phone to computer. You may have heard about speech recognition work and have even had an opportunity to try talking to a computer so equipped. We may never need a keyboard. Imagine telling your computer to "Load Address Book, Find Henry Ask", and then have it tell you the address or phone number, and even dial it and get him on the phone, and send a pre-recorded digitized message. The work on artificial intelligence and computers may mean we can input data on our current financial status, and ask the computer for various decisions; the best financially sound choice, the radical approach, the emotional approach, speculative choice, etc.... all based on our previous interactio with the computer.



Well the future is coming very fast, at times it seems like it takes forever. Waiting and anticipating what is just around the corner can be both exciting and frustrating. For those tired and frustrated parties who have been waiting for things not yet here, just think of all the other things coming in the future, and what we have right now. The computer industry is a fascinating and growing place to be. I hope you enjoy our explorations into what is coming, and what is available.

What about your part in this? We are preparing a reader response card for the New Year issue. I urge you to think about what types of articles, information, format you would like to see more or less of in this magazine. Your feedback has been invaluable, and we count on you to help us plan our growth together.



510 for CP
iSpool

THE BREAD BOARD SYSTEM

A REVOLUTION IN COMMUNICATION SYSTEMS **Copyright©1983 by Philip L. Becker**

$299.95 Plus Shipping and Handling $2.50

Who says remote computer communication has to be tricky? Whoever they are, they're wrong. Why must it take a programmer to set up and maintain a personal communications system? It doesn't anymore! TBBS offers a fast, friendly, flexible, easy to use and responsive approach to remote computer communications which is as easy to set up and use as a spread sheet.

1. Ease of use for callers. VALDOCS users will enjoy using a system that doesn't require a working knowledge of CP/M. The VALDOCS Mail function will even handle file transfers with TBBS!

2. Word wrapping so that various screen sizes get a smooth and properly formatted display no matter what screen size was used during text entry. Your callers will love you for it!

3. Complex or Simple Structures. Up to 20 levels of Menu Nesting and UNLIMITED numbers of menus may be utilized for those of you sinister enough to force your users to traverse the "Twisty Passageways."

4. Electronic Mail Service plus up to 25 separate message boards. These boards can be configured for either Private or Combined access or both. You can even authorize individual SYSOPS for each of the message boards!! Each user may be given read only, read/write or no access to each board!

5. Menus are composed using a Menu Editor allowing total flexibility in system appearance. TBBS may be made to look like a system you've seen before or like something totally new and unique.

6. Question and answer capability allows product ordering, vote taking, user surveys etc.

7. Storage capacity and efficiency. TBBS utilizes 1/3 the disk space of competing systems! Maximum message capacity is 2500 messages! The userlog stores system configuration, access and privilege levels, password and other important information for up to 65,535 separate users.

8. Option to disallow new users. By denying access to new users a completely private system can be constructed. This is particularly useful in user group and business applictions.

9. System security is enhanced by the optional uses of a logon password check, 255 privilege levels, and 16 feature/command authorization flags. These features provide an unprecedented flexiblity in presenting TBBS to various users.

10. Fully protected remote use of DOS, Basic and most programs, including SYSOPing, is available if desired. This may be restricted or public.

11. All system maintenance is easily accomplished with the provided utility programs. Such tasks as removal of deleted messages, restoration of deleted messages, userlog maintenance, menu creation/editing, configuration of system options, and system backup are easier than ever before! Continuity in message reply chains is preserved where logical when messages are deleted in the middle of the chain.

12. Fast, Responsive, and fully protected!! 1200 baud on TBBS averages 40%-120% faster throughput than competitive boards. TBBS responds instantly when a caller commands! Most other systems respond at the end of a line or series of lines or at certain times not at all. TBBS is ready for a new caller in an average of 5 seconds!! With TBBS you can expect a 50% increase in the number of callers serviced due to rapid reset time, system responsiveness and advanced system engineering techniques. TBBS also cleans up correctly after accidental loss of carrier. No hung systems! No lost messages! No forgotten deletes! Even when using remote DOS!

13. At last, a TRULY COMPATIBLE system!! User and SYSOP interface is identical and all data and control files are fully transportable across all supported machine and DOS types!

14. System requires an EPSON QX-10, CP/M 2.2, and an auto-answer 300 or 300/1200 baud auto answer modem. (NOTE: 1200 baud requires a specially modified cable.) We also support many other CP/M 2.2, MS-DOS 2.XX and Radio Shack TRS-80 Models I, III and 4 computers.

15. To see what we are talking about call TBBS headquarters at (303) 690-4566. TBBS has to be used to believe!

VALDOCS is a registered trademark of Rising Star Industries.
QX-10 is a registered trademark of Epson America, Inc.
CP/M is a registered trademark of Digital Research, Inc.
MS-DOS is a registered trademark of Microsoft, Inc.
TRS-80 is a registered trademark of Tandy Corporation.

Are we excited about this product? You bet!!! You will be too when you personally experience the flexibility and power of building your own personalized information system using TBBS.

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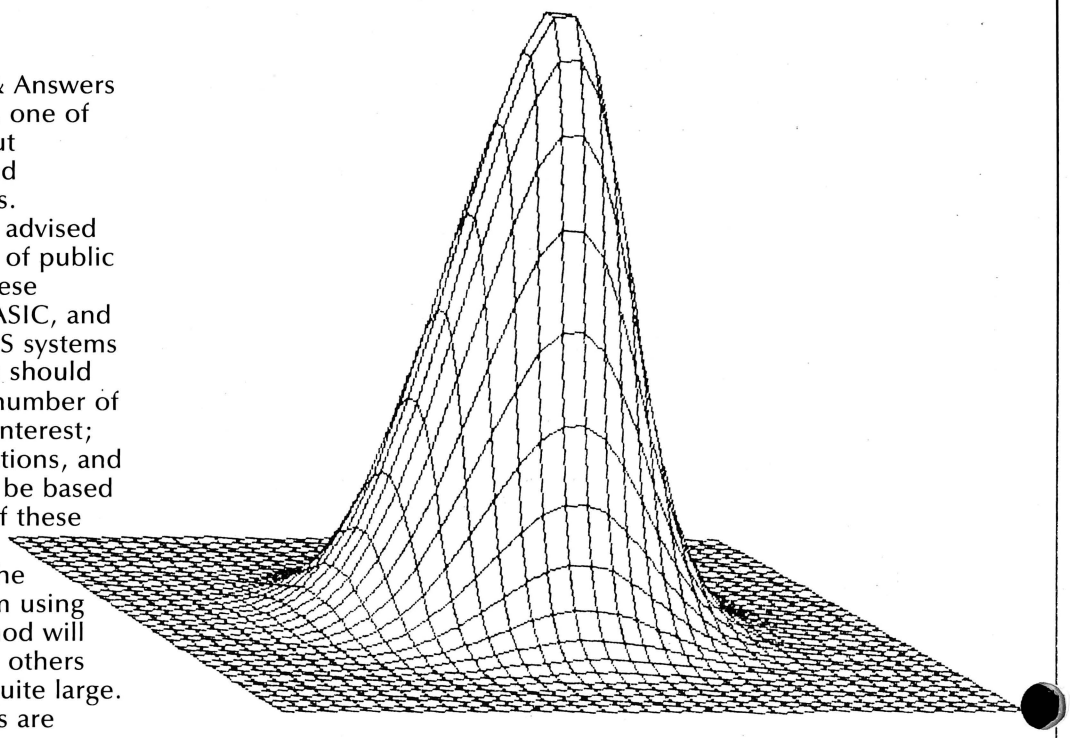
Letters to the Editor:



Dear Editor,

On the Questions & Answers page, March/April issue, one of your readers asked about programs for interest and amortization calculations.

While you correctly advised that there are a number of public domain programs for these purposes, typically in BASIC, and usually available on RBBS systems such as EpsonNet, users should realize that there are a number of methods of calculating interest; each for specific applications, and that most programs will be based upon only one or two of these methods.

In many instances the difference resulting from using the wrong interest method will not be significant but in others the difference may be quite large. In short, some programs are inappropriate for some applications.

We know that some programs, both public domain and commercial, are simply incorrect. The worst of these are some of the programs claiming to calculate rate of return or internal rate of return. In fact we have yet to find any public domain or inexpensive commercial program which performs these calculations correctly, although a very few provide a more or less acceptable approximation. Our own choice for these calculations has, for several years, been a Hewlett-Packard 12C programmable pocket calculator.

For all interest and ortization calculations other rate of retur we find our hCalc Spread eet to be llent. We number of sprea rmats which pro and would on has RT, CDNMORT, LEASE, LOAN etc., a brief description of the interest method used, and the applications for which it is probably most appropriate. There are about 10 files, which easily fit on a single disk.

Interested QX-10 users should send a good quality disk in suitable reusable mailing medium, and return postage (Canadian) or $2 (cheque or money order). Alternatively, send $10 with your request and we will supply the disk, mailer and postage.

We also have a disk with spreadsheets for 1983 Canadian personal income tax - probably a little late for everybody for this year, but they could be used for planning purposes for next year. We would provide copies of this disk on the same basis as above, and we will be preparing a similar disk next January for 1984 taxes.

Would EpsonConnection readers be interested in an article explaining the difference between Canadian and U.S. methods of calculating interest? We would be glad to contribute such an article if there is any ineterest.

Yours very truly,
H. Vernon Paige & Associates Inc.
Willowdale, Ontario Canada

Thank you for the information and offer. If enough readers indicate an interest in an article on interest calculation methods we will request such.

▲ ▲ ▲

NEWS NOTES

■ Two new lap-held portable computers have been released by Epson Japan, and now introduced in England. The two units, HC-40 and HC-41, both have 8 line x 40 character screens, and operate on the CMOS Z80 chip. They come with 64K RAM and 96K ROM. The ROM includes two ROM sockets similar to those in the PX-8, which are removable from the back of the computer. Standard interfaces include the RS232C, serial, bar code, and Centronics. The microcassette drive is an optional feature with these models. The most interesting features are the detachable keyboards. There is a standard typewriter keyboard virtually identical to that of the PX-8, and a second specialized keyboard with numeric keypad and 31 special keys which can have user-defined functions assigned to each key in the regular and shifted modes. These units both run CP/M-80 2.2 and are compatible with all the other Epson peripheral items available now. An additional unique feature is the familiar replaceable cartridge on the top right of the machine. This is similar to the HX-20, where the microcassette drive, or additional cartridges can be inserted. The various units featured for this slot include: microcassette drive, specialized RAM packs, 64K ROM cartridge, and various other blank user adaptable cartridge packs. These units may well capture the vertical markets around the world. No information is currently available around plans for release in the U.S. market.

■ Official Epson User Groups are increasing each day. The support information from Chuck Champlin's office at Epson America, Inc. has been rapidly increasing. We are pleased to see Chuck is getting information out to the groups, and that he continues to be really dedicated to helping us. Thanks Chuck! Current information from his office included a 23 page phamplet dedicated to Application Notes on "Using the LQ-1500 with PeachText." Copyright, August 1984 by Epson America. This document is the first of several promised in the future for users regarding applications for their Epson computer hardware and software. The range of information "will range from simple word processing and printing applications to complex programming techniques." Chuck is looking for feedback on future topics to be covered. This feedback would be most helpfully forwarded to him through user group channels, rather than overwhelming him with multitudes of individual letters. If there is no group in your area then you may want to write directly. How can you get these special Application Notes? They are scheduled to be available through your dealer in the next few months. Ask your dealer to order them through their distributor. Two future ones are: "Using the LQ 1500 with Apple Writer", and "Using the LQ 1500 with EasyWriter."

Another note from Chuck's office is in regard to:

Cleaning the QX-10 Disk Drives

■ "First off, a fascinating fact: the expected life of the Epson-made SD-321 disk drive used in the QX-10 is 10,000 POH (power on hours), which is about 4.5 years at 8 hours per day, 5 days a week.

Need to clean the drives depends on the environment in which the drive is used (i.e. dusty vs. clean) and how hard you work the drive. In any case, according to Epson Service, you really should not clean the drive as routine maintenance. The word is, 'Not broke? Don't fix it.'

If you are getting read/write errors not due to software problems or faulty disks, and the drives have been in moderate use from 10 to 12 months, it's probably time. In that case, use a commercially available 5.25-inch drive cleaner (wet type preferred). Do not insert the cleaner disk in the drive for more than 30 seconds.

And finally, DO NOT follow the

Con't on page 19

A STAND WORTHY OF THE QX-10

PRICES

QX-10 . . . . . $27.50
80 column printer. . $25.50
130 column printer. $28.50

Beautiful custom stand for the QX-10 elevates CPU and monitor just the right amount to slide keyboard underneath in mid-tilt position without unplugging. Frees valuable desk space, protects keyboard, and facilitates access to disk drives. Sturdy 3/8" clear acrylic with polished edges and soft rubber feet to grip and protect. CPU rests on solid surface as intended by its design. Matching printer stands also available. Compare our quality and prices. You must be satisfied or return in 15 days for full refund. Order COD by phone for same or next day shipment.

Add $3.00 shipping per st
MD residents add 5% ta
COD add $1.65 service ch

Send check or money order t
MI
134
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new products

PRINTER EPROM

Make your Epson FX-80 or FX-100 printer 100% compatible with the IBM-PC, the TRS-80 Model 1, WANG or COMMODORE computers with this EPROM. List price is $49.95. Contact: Imperial Technical Inc., 501 N. Figueroa Street, Los Angeles CA 90012.

PRINTER INTERFACES

Make your Epson RX or FX printer compatible with the MacIntosh or Apple IIc . AYN (All You Need) module allows the Mac to connect to an Epson FX-80, for a list price of $99.95. cPrint permits hookup of an FX or RX printer to the Apple IIc. Its suggested price is $59.95. For more information on both of these products contact: Dresselhaus Computer Products, Glendora CA 91740.

PAPER CONVEYER

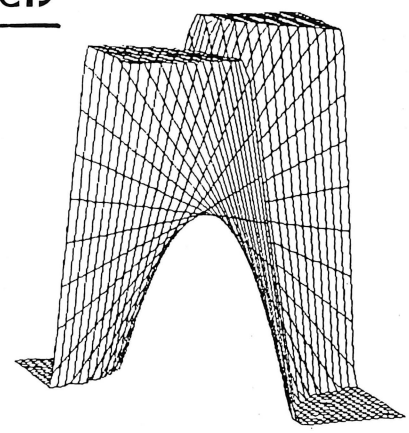
Allowing tractor printers to use any kind of paper, Paper Conveyer literally carries paper through the printer. No mechanical modifications to the printer are necessary. List price is $38.00. Contact: Valinco Automation Ltd, 2465 Dunwin Drive, Unit 4, Mississauga, Ontario L5L 1J9, Canada.

HX,PX
HUSH 80 PRINTER

A portable thermal, 80 column printer, the Hush 80 prints at a remarkably fast 80 characters per second. It measures 11.63"x5,5"x2.8" and uses roll thermal paper. A list price of $159.99 includes cable and A/C adapter. Contact: Ergo Systems, Inc., 1360 Willow Road, Menlo Park CA 94025.

HX
ACS SPEECHPAC / EPSON

This new speech synthesizer provides the nonverbal person with new communication capabilities. The unit occupies the expansion units position. With the capability of typing in any English words and having the synthesizer speak the words in male, female or child-like voices, the ADS SpeechPAC represents a remarkable technicological breakthrough. Retail price is $2,195.00. Contact: Dialoguer, 425 Lafayette Road, Suite 301, Medina, OH 44256.



QX
SCREENWIPE

Easy to use, disposable, specially formulated paper, Screenwipe not only cleans display screens, but also eliminates static. Contact: Aldine Paper Company, 315 Park Avenue South, New York NY 10010.

QX
COMPUTER CHEF SOFTWARE SERIES

This collection consists of three packages. Computer Chef is a computerized cookbook allowing the addition of your own recipes to the 70 that accompany the program. You can find recipes for ingredients on hand, scaled to fit available quantities. Or you can use the second package, What's for Dinner, with Computer Chief. This two disk data base contains over 200 recipes, covering everything from salad to dessert. Wok Talk (which also requires Computer Chief to operate) contains 100 Chinese recipes. It not only serves as a data base, but also as a Chinese cooking primer. Contact: The Software Toolworks, 15233 Ventura Blvd., Suite 1118, Sherman Oaks CA 91403.

QX
PEACHCALC OVERLAYS

This series of menu driven overlays allows calculation of common financial questions such as compound interest, future value of regular investments, one time investments, depreciation, and inflation. A tutorial section is included for those who are not familiar with Peachcalc. List price is $39.95. Contact: Econoware Enterprises, 1705 Glen Valley, Irving TX 75061.

QX
GENERAL ENGINEERING AND SCIENCE FONTS

Designed for use with QX-10 and FX-80 printer, this system is characterized by a 'what you see on the screen is what you'll get on the printer' claim. Containing over 500 characters, the program retails for $95.00. Also offered is a personalized font service, with the option of electing from a masterfont database, or designing your own fonts. Contact: Smiling Faces Software, P.O. Box 2122, Chapel Hill, NC 27515.

HX
PILOT 310

This new game for the HX puts you in the cockpit of a fighter plane containing special laser weapons. You must fly low over a river to destroy everything in your way and at the same time avoid bombs that have been placed in your path. Contact: Software Riches, Riverview Terrace, Irvington NY 10533.

HX
TIMEKLOC

Transforming the HX into a computerized timeclock, this program keeps track of start and stop times, elapsed time, and type of labor performed on every job an employee works during the day. It also keeps track of how long the HX has been running since last charged. Listed price is $200.00. Contact Minitech Software, Inc., 5111 Hanson Court, Crystal MN 55429.

PX
FORTH

American Micro Products is releasing a ROM based Forth for the PX-8. It will be the Mountain View Press implementation (79 Standard) and will interface with the microcassette, RAM disk, and disk drive. The retail price of $150 includes the two books Starting Forth by Leo Brodie and All About Forth by Glen Haydon. Contact: American Micro Products Inc., 705 North Bowser, Richardson TX 75081.

American Micro Products is also converting all of their excellent HX-20 software for use on the PX. No release date or prices have been announced.

▲ ▲ ▲

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QCS hardrive systems. Just plug it into your computer, install your software, and start flying. Access times are 5-10 times faster. No more hassles with swapping data and program disks around. Keep your CPM, MS DOS, & TPM (Valdocs) programs all on *one* hardrive. Built to last and engineered to perform, these units come with a *full* one year warranty. These drives are trouble free, but if anything does go wrong a 72 hour factory turn around is guaranteed.

ITEM #	DESCRIPTION	LIST	YOUR COST
DSK-40	10 MEG half height drive (can't be retrofitted to DSK 8X)	$1999.00	**$1799.00**
	DSK-6 series can be retrofitted with a DSK-8X later.		
DSK-62	10 MEG full height drive	$2499.00	**$2125.00**
DSK-63	16 MEG full height drive	$2799.00	**$2379.00**
DSK-64	20 MEG full height drive	$2999.00	**$2549.00**
	DSK-8 series comes with 5 MEG DSK-8X backup sys. installed.		
DSK-82	10 MEG full height drive	$3799.00	**$3229.00**
DSK-83	16 MEG full height drive	$4099.00	**$3689.00**
DSK-84	20 MEG full height drive	$4299.00	**$3869.00**
DSK-8X	Retrofit 5 MEG removable backup system (for later installation on DSK-6 series.)	$1400.00	**$1325.00**

ALL HARDWARE, SOFTWARE AND CABLES ARE INCLUDED FOR EXTREMELY EASY INSTALLATION.

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We have lots more, call or write today for our free catalogue
Hard Disk compatible. Each of these 5 Versa Business modules can be used independently or linked together in any combination to form a complete coordinated system. All Versa Business modules are guaranteed to outperform all competitive systems at a fraction of their cost or your money back! (Must be returned within 30 days in a resellable condition).

DESCRIPTION	COST
VersaReivables: Menu driven, automatic billing, prints statements, invoices, reports, tracks accounts and much more!	**$99.95 ITEM# VR-1**
VersaPayables: Tracks current & aged payables, prints checks, vouchers, registers, reports... and much more!	**$99.95 ITEM# VPA-1**
VersaPayroll: All necessary payroll calculations & government requirements are performed automatically. Operator can alter information easily via screen displays and perform sophisticated functions that were until now limited to more costly software.	**$99.95 ITEM# VPY-1**
VersaInventory: A complete inventory control system, auto tracking of all stocking, backorder sales, pricing and reordering information. Prints invoices, listings, reports, price lists and lots more.	**$99.95 ITEM# VI-1**
VersaLedger: Handles 2400-10,000 entries per month, stores all check & ledger information forever. Prints track or feed checks, handles multiple checkbooks & ledgers, prints 17 customized accounting reports and a whole lot more. All software comes with sample printouts, manuals, and step by step instructions. Even an inexperienced user can achieve professional results in just one afternoon.	**$149.95 ITEM# VL-1**

OR BUY THE ENTIRE 5 PACKAGE SYSTEM -
VERSA PACK PLUS ITEM# VP+ YOUR PRICE IS ONLY **$499**

ADDITIONAL SOFTWARE FAVORITES

DESCRIPTION	LIST	YOUR COST
D BASE II (Ashton Tate)	$700.00	**$595.00**
FRIDAY (Ashton Tate)	$295.00	**$265.50**
PERSONAL PEARL (Pearlsoft Systems)	$295.00	**$265.50**
PEARL LEVEL III (Pearlsoft Systems)	$495.00	**$445.50**
WORDSTAR/SPELLSTAR (Micropro)	$695.00	**$625.00**
WORDSTAR PROFESSIONAL (Micropro)	$695.00	**$625.00**
INFORSTAR (Micropro)	$495.00	**$445.00**
STANDARD TAX (CP Aids)	$595.00	**$535.00**
MICROPLAN (Chang Labs)	$495.00	**$445.00**
CIS COBAL (Microfocus)	$850.00	**$722.00**
BASIC COMPILER (Microsoft)	$395.00	**$355.00**
COBOL 80 (Microsoft)	$700.00	**$630.00**
FROTRAN 80 (Microsoft)	$500.00	**$450.00**

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Q PLOTTER SOFTWARE
(Look for the rave review in July's Epson Connection)

Q PLOTTER & AMDEK PROFESSIONAL 100 XY DIGITAL PLOTTER PKG.:
10″×14″ Range on paper or film, 3 pen unit (non automatic), standard parallel interface accepts ASCII codes. Just plug into your QX-10 printer port, load up your Q Plotter and start creating.
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C.A.D. + SPECIAL

Q PLOTTER & AMPLOT II PKG:
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THE REMARKABLE GENEVA PX-8 Part 1- HARDWARE

by Carolyn McCarthy and Bob Hermann

SPEC SPOT

Product: Epson Geneva PX-8
Type: Portable Computer with 64K RAM and 32K ROM, with expansion memory available in 60K and 120K attachable modules. This is a battery powered unit, with a weight of less than 5 pounds.
Size: The dimensions are 11.7"W X 8.5"D X 1.9"H, almost identical in size to the Epson HX-20 portable computer.
Operating System: Z-80 compatible CMOS CPU operating at 2.45 Mhz, with a 6301 processor for display and I/O control, and a 7508 processor which controls the interfacing to the keyboard and A/D converter. The system comes with its own version of the CP/M-80 operating system.
Software: The system includes utility programs and an enhanced version of MicroSoft BASIC, Portable WordStar, Portable Calc, and Portable Scheduler on user installable ROM capsules. Other software packages scheduled to become available are Dbase II by Ashton-Tate, SuperCalc by Sorcim, business applications from Traveling Software, Inc., Unison World games,and Forth by American Micro Products.
Ports: RS-232C serial interface, high speed serial port, barcode interface, analog to digital converter, a speaker output port, and a plug input for the battery charger adapter.
System Bus: The address bus is 16 bits, and the data bus is 8 bits.
Additional Features: The unit includes a microcassette tape drive and high resolution LCD display screen of 8 lines by 80 characters in text mode, and 480 x 64 dots in graphics mode. The full keyboard has 72 keys which includes five special programmable function keys, cursor control keys, and a variety of other special function keys. The keyboard has a 7 character type ahead buffer, and most keys have an auto repeat feature.
Price: $995.00
Ease of Use: Easy to use, especially for those familiar with the CP/M operating system commands and MicroPro software.
Performance: Excellent as a stand alone portable, and a powerful companion for the QX-10 and other desktop computer owners.
Documentation: Excellent. Three binders clearly written for the beginning user cover PX-8 Operations, CP/M-80 for the PX, and a PX-8 BASIC Reference Manual. Two separate spiral bound manuals are included for MicroPros' Portable WordStar, and Portable Calc and Scheduler.
Optional Peripherals: 3 1/2" battery-operated disk drive with 320 KB total storage ($599), a multi-unit which combines 64KB expansion RAM disk with a direct connect 300 baud modem ($360), a 60KB Ram solid-state expansion unit ($329), a 120 KB RAM expansion unit ($460), a direct connect 300 BAUD modem ($190), two new battery operated printers: P-80 an 80-column, 9-pin thermal transfer printer ($275). The P-40 is a 1½ pound ($150) narrow width printer. It measures 1½" x 5" x 8½" and uses only thermal roll paper. This is primarily a VAR, vertical market item and may not be available directly to end users. A new battery powered 3½" disk drive provides 320KB of storage on double density disks ($1,050). The existing Epson TF-20 twin 5¼" floppy disk drive unit and Epson dot matrix serial printers will also interface with this unit.
Summary: A powerful portable Z-80 based computer, with an excellent variety of software, housed in an attractive case with a convenient pull-out carrying handle.
Manufacturer:
Epson America, Inc.
2780 Lomita Blvd.
Torrance, CA 90808

The Geneva PX-8 is a compact p[illegible]ble computer with a great deal [illegible]xibility. It comes standard with a p[illegible] LCD screen which displays 8 [illegible], with 80 [illegible]aracters on a [illegible]mpute[illegible] based on the [illegible]p. The use of [illegible]tem makes an [illegible]oft[illegible]re already [illegible]

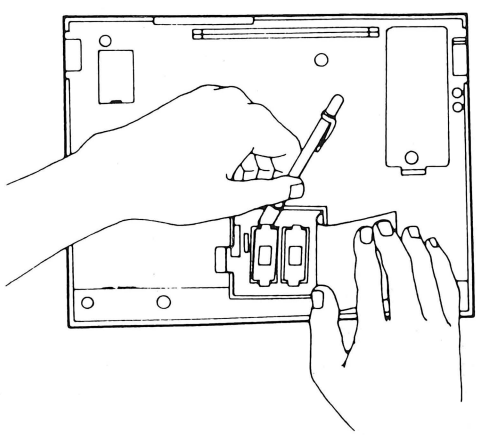
Spreadsheet, TERM, a basic terminal program, FILINK, a program for up/down loading with the QX-10, a CP/M Utilities ROM, and an expanded version of Microsoft BASIC. WordStar files are compatible with the standard WordStar programs run on desktop computers. WordStar is a well known and powerful word processing software package by MicroPro International Corp.. We will be providing a review of WordStar separately in a coming issue.

There are a wide variety of optional peripherals available for the PX-8, as indicated in the SpecSpot. This portable computer is remarkable in that it provides the power of desk top units in a lap-size unit, can operate on the go, and is under $1000. We have divided our review into two parts, Hardware and Software because of the numerous features housed in this 5 lb. unit. Next month we will look at the built-in software and operating tips. The documentation from Epson America is outstanding and fills three

binders. Both the authors already find this computer exceedingly useful for computing on the go, at the beach, as well as at the office.

The Processors

The PX-8 contains a Z-80 CMOS type Microprocessor that controls the operations of the 64K RAM, and 32K ROM. A 7508 microprocessor (preprogrammed 4 bit chip) controls the interfacing with the clock/calendar, power supply, analog interface (A/D converter) and the keyboard. A slave 6301 Microprocessor handles the display (6K separate RAM), the input/output high speed serial port, speaker, microcassette, and ROM capsules. The main processor handles the RS232C and Barcode Reader ports. The PX-8 uses Soroc terminal emulation, and is therefore compatible with many if not most CP/M programs which have installation options. If you are a beginning computerist, what is important about the PX-8 is that the memory, as well as programs in memory, are retained even after the unit is turned off. This is because of the use of CMOS chips (Complimentary Metal Oxide Silicon). These chips use very little power, and therefore a battery backup such as is used in the PX-8 and HX-20, can retain the memory in the chips over a long period of time. The PX-8 comes with two NiCad batteries. One is a main battery, and the other acts as a backup unit. The main battery will run for around 15 hours before recharging is necessary, and the backup battery will protect what is in memory until you can recharge the unit. The importance of the ROM chips (Read Only Memory) is that they represent entire programs, which can be called up like a program on a disk drive, but do not take up additional RAM memory space (ie the TPA, Transitional Program Area) until loaded in. These chips are housed in plastic carriers to help protect them from possible damage when handling them. You can install two ROM chips at a time in the unexpanded PX-8, and the multi-unit optional attachment provides a third empty ROM slot for use. These ROM chips come in a box, and one should take care in handling them. It is suggested that you store them wrapped in tinfoil to help protect them from static charges. The only danger we have run into at this point is that if you are not careful in removing the chips, you can break the plastic carrier. So, be sure to remove the chips by lifting up a little on one end, then the other, until the entire chip is free. Each ROM chip slot is treated like a disk drive. ROM slot 1 is called drive B, and ROM slot 2 is drive C. Access to these ROM slots is through a convenient panel on the underside of the computer.



PX-8 Memory Allocation

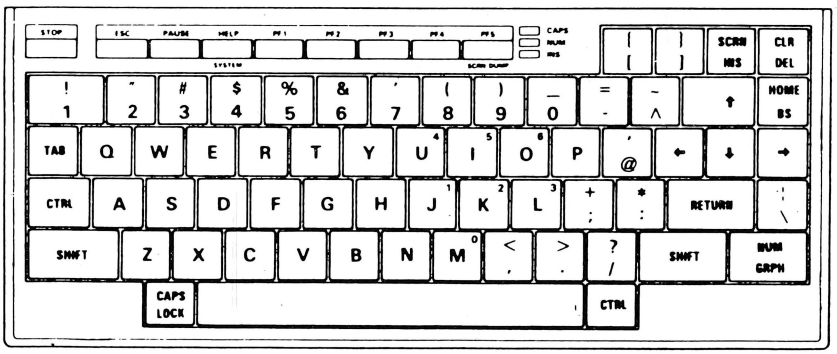
The memory of the PX is divided into drives with the default arrangement having drive A as the RAM memory, B and C the ROMs (WordStar, Basic, etc.), D through G the floppy disk drives, and H as the microcassette drive, with the multi-unit you also have a third ROM slot referred to as Drive I. Drives B and C are read only, that is the programs there can be read, but no files may be stored on these drives. The CONFIG program one of the utility programs provided with the unit allows two other drive configurations both permitting for immediate access to the floppy disk drives when the PX is turned on (Config Option #5).

The PX-8 has two areas for file storage; the RAM disk, and the microcassette drive (with optional enlargement of the RAM disk or addition of a separate floppy disk drive). The RAM (random access memory) drive is the area where WordStar files, BASIC programs, and data for programs such as PortaCalc can be stored and then re-accessed almost immediately. Its capacity must be 'shared' with the computer's BIOS (Basic Input/Output System), an area of interest to machine language programmers. Although advertised as a 64K RAM computer, the PX-8 uses about 40 of this 64K for transient files (the Transient Program Area) such as PIP, TERM, and CONFIG, leaving the user really only about 23K of actual memory (the directory requires about 1K) storage area on the RAM disk. But to think of the PX as having only 23K of user available memory is misleading. It is possible to have a full RAM drive and still 'load' and run a program from the microcassette drive. Of course once you exit from the program it is necessary to go through the microcassette loading process again. Files too large for the amount of memory left on drive A (RAM drive) can be stored to drive H (the microcassette). Access to these files is sometimes a rather time consuming process; loading a 2(program takes about 8 mi[illegible]es, depending on [illegible] mode y microcassette [illegible] is in. optional RAM floppy d[illegible] dr wi[illegible]e yc[illegible] pl su[illegible] op[illegible] ca[illegible] no[illegible]

inconvenience of the relative slowness of tape storage and retrieval can often be overcome by thinking ahead and taking advantage of the automatic shut-off feature of the PX-8.

Keyboard

The PX-8 keyboard has 72 keys, and has a very nice firm touch, somewhat similar to the new Brother keyboard for the QX-10. The keyboard is an ASCII keyboard layout. The main difference between the PX-8 keyboard layout and that of the QX-10 HASCII version is the location of the control key on the left side which is above the SHIFT key, and the punctuation marks :;" and *. The



PX-8 has 5 programmable function keys PF1-PF5, as well as several special function keys: HELP, ESC, STOP, and PAUSE. The keys are color coded for easier use, dark grey alphanumeric keys, orange cursor control keys, light grey special function keys, and red STOP and RETURN keys. There is a buffer for the keyboard allowing you to type ahead of the display, and most of the keys are auto-repeat keys (if you hold it down, it repeats). There are special graphics characters available by pressing the NUM/GRAPH key with various other keyboard entries. GRAPH/O presents a heart, GRAPH/M a trick, GRAPH/V an old style phone, there are a total of 32 graphics characters. You can also create your own graphics characters. The arrow keys are slightly inconvenient. The down arrow key is on the same line and between the left and right arrow keys, just to the RETURN key. [illegible] return instead

Special Function Keys

The purpose of the special function keys of the PX is to save keystrokes when entering common commands. Labeled PF1 to PF5, their number is actually expanded to 10 when used with the SHIFT key. They assume different functions depending on the environment. Handy keyboard overlays show the default settings for both BASIC and CP/M. When using the communications program TERM they assume different functions, and when used to operate the cassette drive manually, they have yet another set of functions (shown on the bottom line of the System display). Not only can you wind or rewind the tape drive, but if you have an audio microcassette tape, you can actually use the microcassette drive to listen to music. CONFIG, a utility program included, permits individualized settings of the function keys for BASIC and CP/M, even allowing the user to define PF6 to PF10 with character strings for use with WordStar. The HOME/BS key can be used for backspacing when in CP/M. When used in this manner, it erases every character. In WordStar, it backspaces without erasing. Several keys assume different functions in WordStar: the STOP key becomes CTRL C (scroll down one screen), and the the SCRN/INS key CTRL R (scroll up one screen). When you press CONTROL/HELP you immediately go to the system display. The system display is a menu enabling you to set various defaults, like time, date, alarm, user bios, ram disk size, and cassette recorder functions.

Display

The PX-8 has a folding display screen. To open it up, you press up on the slide switch located on the top of the unit, this unlatches the screen, and you can then tilt it back to a convenient position. The screen displays 8 lines by 80 characters in text mode, and 480 x 64 dots in the graphics mode. To conserve on power for this portable unit, the PX-8 automatically powers off after 10 minutes. So if your screen suddenly goes BLANK, everything is not gone, just turn OFF and ON the power switch on the right side. You will come right back up where you were when it went into sleep mode. QX-10 users will be very familiar with this feature. This feature can be disabled or modified through the CONFIG program; option 1. You can set the timeout mode to occur after 1 to 255 minutes of non-interaction. The recommendation is to keep this to a low number. While the physical screen displays 80 columns by 8 lines, it is actually a window over a VIRTUAL screen that is up to 80 columns wide and as high as 48 lines. Your only limit is how much of the actual page you see at one time. You also have the ability to display two virtual screens, switch between them with CTRL left and right arrow, as well as having four different screen modes. These special features are explained in the CP/M-80 for the PX-8 section on CONFIG, Option 9 - Changing the Screen Mode. The visibility of the screen can be adjusted by moving the slide switch located directly below the screen. This changes the viewing angle. I encountered some difficulty viewing the screen in situations where the lighting was dim, and also near a lake where moisture caused sections of the screen to become blurred. The recommended procedure to clean the screen is to wipe it with a soft clean cloth, and NEVER use a cleaning solution. A larger screen would be more convenient, but there was never any difficulty performing the various functions involved in writing, programming, and using telecommunications.

The Microcassette Tape Unit

The tape drive is known as drive H. It is accessed by typing H: at the system prompt. The built-in tape drive takes standard microcassette

tapes. You should note that these are different than minicassette tapes, which are similar in size, but have different shaped mounting holes. The 60 or 30 minute tape will store up to 12 files on each side. A 30 minute tape (15 min. per side) will store up to 50K of information. There are several special things to take note of with your tapes:

MOUNTING and REMOVING TAPES — Be sure to follow the directions when inserting a tape, or removing it! To briefly summarize the steps, every blank tape must first be initialized, somewhat similar to formatting blank disks before using them. This initializing sets up an area at the beginning of the tape for a tape directory.

To initialize a new tape:

1. Go to the System display — Press CTRL and HELP.
2. Check the bottom line of the display to see if /mount appears.
3. Now press SHIFT-PF3. The tape will rewind, then move forward while preparing a directory area.
4. When the system display returns you will see on the bottom /remove. This has completed the installation and preparation for using a tape. Press escape and you are ready to go on.

To REMOVE a tape it is very important to remember to let the computer know you are going to remove it. The steps are as follows, and do not take long:

1. Press CTRL SYSTEM.
2. You should see /remove on the bottom line. Now press SHIFT-PF1 (which is PF6), or use the REMOVE statement in BASIC. If you have written a file to it, now is the time the tape directory will be updated.
3. You can remove the tape when these steps are completed. Why is this step important? If you reset the computer without first going through the REMOVE process your files may become inaccessible.

The PX-8 operations manual (p46) shows a nice chart of direct operations you can perform with the tape drive. One interesting feature is the ability to listen to the tape. To do this you go to the system display (CTRL-HELP) and press PF2. I was able to listen to a lecture I recorded on a SONY microcassette recorder, and even music. The speaker is real, and provides very nice reproduction of sound. It is worthwhile to read the instructions on placing your MCT (microcassette tape drive) in the proper verify modes, to insure accuracy of data.

PX-8 Peripherals

The list of peripherals for the PX include:

RAM Memory Expansion Units. Available in either 60 or 120K versions, they attach to the bottom of the PX and extend the RAM disk capacity and do not alter its behavior in any manner. The expansion units include a battery which is charged whenever you charge the PX. The RAM disks have a write-protect switch which allows you to set it for read only operation.

Internal Modem. This attaches to the bottom of the PX-8 giving it a 300 baud direct connect modem.

Multifunction Unit. This peripheral includes 64K of additional RAM for the RAM drive, the internal modem, and an additional slot (drive I) for ROM chip based programs like Portable WordStar. It also attaches to the underside of the PX-8. This unit is scheduled for future release.

PF-10 Floppy Disk Drive. This 3 and ½ inch, battery operated disk drive will allow 278K of user storage per disk. With all of the portability of the PX, it significantly increases the memory capacity of the machine. It will run continuously for one and a half hours without charging — several days of heavy use.

P-80 Printer. A battery powered, thermal dot matrix printers with the same portability of the PX. This printer will output text at up to 45 cps. The P-80 is a 9-pin 80 column dot matrix printer. It offers various type sizes and styles. It measures 2½"x 4½"x 11½" and can accommodate 8½"x 11" regular bond paper using a special carbon ribbon.

TF-20 5¼ inch Dual Floppy Disk Drive. This is not designed to be portable, but offers two drives each with 278K of user memory space. Also offers the capability to directly exchange disks with the QX-10, under the appropriate conditions.

Special Features

This is a lightweight Traveling computer with a pull-out handle. The case is a heavy plastic. The handle virtually disappears into the machine. There is a removable cover which slides over the keyboard to keep it protected. There are two legs at the back of the unit which pull down to change the angle of the keyboard. When one of the peripheral units is attached to the bottom of the PX-8, the legs are no longer functional. The attachable units are wedge shaped and provide a convenient angle (around 15 degrees) in place of the feet.

There is a password feature built into the computer. It allows you to set up a password protection against unauthorized use (this can be disabled by using the reset button near the ROM slots). The clock feature lets you set the internal clock to be an alarm clock, or even start and run a program at a specific time.

Summary

We are impressed with the power and capabilities of the PX-8. While it does not have the real user friendly interface we are used to with Valdocs, it comes with an excellent assortment of software and peripheral options. Those familiar with the CP/M operating system and WordStar will feel right at home with this computer. The only drawbacks we have found are: the screen display, which needs proper lighting to be clear, and the lack of ability to customize the Portable WordStar program to print files out to non-Epson printers. We have tried our Comriter serial printers, but cannot achieve full compatibility.

The PX-8 is a very capable portable computer at a reasonable price. If you are looking for a traveling computer and or companion to your desktop computer, you should consider the PX-8.

Special Free Offer

If you use CP/M programs on your Epson, SmartKey II can save you thousands of tedious keystrokes. SmartKey II is the software program that is taking the computing world by storm. Peter McWilliams, William Buckley, and others rave about how SmartKey II speeds up and improves accuracy in computing by eliminating boring and repetitious routines.

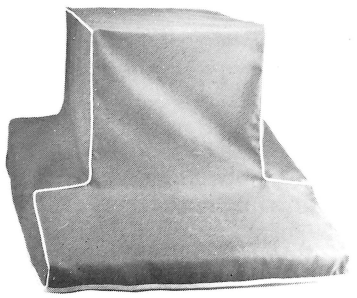
Smartkey II lets you easily reprogram as many upper and lower case keys on your keyboard as you want, even while your other software — such as Peachtext, WordStar, dBase II, etc., — is in operation.

Uses for this powerful, easy to operate program are endless. With SmartKey II you can assign up to 3,750 characters to a single key. Once you have redefined keys, you can put them to work or change them at will. You can also store your "smart key" definitions in a special file and use them later, or make numerous definition files to use with a variety of your favorite programs or projects. Imagine saving complex command codes, boilerplate paragraphs, sentences, proper nouns, inventory numbers, or whatever, and then injecting any of them into your work with the stroke of a single key. This is a must-have, time saving computer program for all QX-10 users. SmartKey II can even make your Epson's HASCI keys come alive and be productive in CP/M programs.

SmartKey II has a little known super companion program called SmartPrint II. SmartPrint II retails at $49.95. SmartPrint lets you give single-stroke commands to your dot matrix printer to make it produce italics, greek characters, graphic symbols, boldface, underlining, extended typefaces, accent marks, and much more. SmartKey II retails at $89.95. Now, for a limited time only, Central's price for a combination SmartKey II and SmartPrint II pack is only $89. In addition, as a bonus, with your purchase you will receive a free copy of Paul Golding's book, *Screen Smarts, The Computer Tamer's Guide*. This book is a $15.95 value. It tells how Mr. Golding, a professional writer, uses SmartKey II to turn his humble computer into a supercharged dedicated word processor. Please don't delay, this offer may not be repeated. Order today to get SmartKey II, SmartPrint II, and a free copy of *Screen Smarts, The Computer Tamer's Guide,* fast.

Introducing A Classic Form Fitting Epson Cover

Photo: Form-fitting cover over CPU, monitor, and keyboard.



At last, the classic Epson dust cover you'll be proud to own and use. This first rate computer cover is made from a premium, lint free, static free, washable, free breathing, and fade resistant sailcloth. It comes in a rich looking Navy blue or Sand. The Navy cover has a smart contrasting silver gray piping and trim that adds a superior finished look. Not to be outdone, the Sand cover is handsomely finished in a rich chocolate piping and trim.

This remarkable form-fitting dust cover makes you feel good and will keep your Epson dust free and looking brand new for years to come. For a limited time only, your price for this factory direct, custom made, sailcloth Quality Cover is $18.95. When ordering remember to indicate color preference. This special low price is subject to change. You must be completely satisfied with your purchase of this cover or we will refund your money immediately. Order today.

Matching sailcloth printer covers for all Epson printers and ComRiters are $14.95 each.

- Quality tailoring
- Easy care fabrics
- Attractive colors
- Professional appeal

Richly tailored inside and out. Look inside any of our Quality Covers; see the ultimate finishing; we use machines that sew with 3 needles so that edges will not unravel or shed lint. We stress perfection because you deserve the best. Compare for long-lasting satisfaction.

FACTORY DIRECT

Letter Quality

Say goodbye to correspondence qual
high–resolution, proportionally spa
Font provides fonts in sizes from
Roman, Bold, Italic, Script, Old En
low–cost Epson (MX, RX, FX) and
Font is an easy–to–use software pa
compatible systems; no special hardv

Actual sample produced by an MX-80 and Fancy Font.

Your Incredible Printing Machine!

Your Epson printer is going to get even better. *Fancy Font* can make it into an incredible printing machine. The *Fancy Font System* is a software program that turns the bits and bytes generated by your computer into over 30 font sets in sizes from 8 to 40 points that can be printed on any Epson or Gemini 10X printer.

Fancy Font styles include Roman, Bold, Italic, Script, Old English, and more. In addition, custom forms, invoices, labels, signs, foreign languages, mathematical notations, view graphs, resumes, newsletters, brochures, complete manuals, invitations, place cards, and high-resolution, proportionally spaced, letter quality business and personal letters can all be printed on your Epson printer with *Fancy Font* at the helm. *Fancy Font* is a product of SoftCraft Inc. You may have seen SoftCraft's national ads. They are printed with *Fancy Font* on a Epson MX-80. The ad is powerful visual medicine. The list price for the fully documented *Fancy Font System* is $180. Central's price for *Fancy Font* is only $149. Order *Fancy Font* today and add an amazing sparkle of creativity to all your printed materials. *Fancy Font* will make your Epson printer come alive. It's magical.

Stop Tearing Up Your Disk Drives!

If you're using your Epson as a printer buffer instead of a computer, you may be tearing up your disk drives. Disk drives are mechanical devices, they are often the first parts of a computer to go sour. No wonder. Everytime you feed your printer a file, the drives whirl madly until the printer has accepted the entire file. Sometimes this takes a long, long time.

The Epson can dump a file faster than a printer can accept it. So, it's great to have a device that will catch the file, quiet the disk drives, and give the computer back to you.

Photo: MicroSpooler 64 K P-P

CONSOLINK MICROSPOOLERS

Description	List	Price
64 K P-P	$315.00	$279.95
64 K P-S	$343.00	$299.95
64 K S-S	$349.00	$299.95
64 K S-P	$339.00	$299.95
Cables	$ 54.00	$ 29.00

64 K	Stores and spools files as large as 64 K.
P-P	Parallel Epson port to parallel printer port.
P-S	Parallel Epson port to serial printer port.
S-S	Serial Epson port to serial printer port.
S-P	Serial Epson port to parallel printer port.
Cables	Set includes one special male to female connector and one male to male connector. — Please tell us model and type of printer you're connecting to your computer.

Includes these unique features:

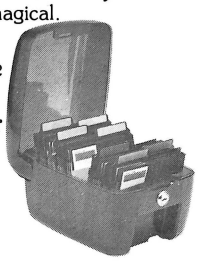
- Status digital readout
- Multiple copy function
- Temporary pause function
- Sleek internal power supply
- Comprehensive self test routine
- Slimline attractive casing
- Front panel reset
- 12 month factory guarantee

If you're tired of hearing your disk drives grind down, you need a printer buffer. The best performance and price buffer on the market is the Consolink MicroSpooler. This computer-absorbs files as fast as your computer can send them, and then feeds spools them to your printer a few bytes at a time.

MicroSpooler is an intelligent, feature-packed buffer. It is easy to install and operate. Merely place it between your computer and printer, then connect it with two cables, and feed files as large as 64K within seconds to your letter quality or dot matrix printer. The instant the transfer is complete, you can operate your computer. The MicroSpooler does the rest.

MicroSpooler is available in a variety of configurations. You can link your Epson to any popular printer with two cables. Please check our low MicroSpooler prices. You won't find a more feature-packed or reliable MicroSpooler of your choice for 15 days. If you are not completely satisfied, return it for a full refund. Your Epson deserves this attractive and functional MicroSpooler today.

Lockable Diskette Defender



Handsome, sturdy, smoke-tinted acrylic tray holds 70 Epson-size diskettes. Flip-up lid keeps out dust, debris, and moisture, and locks securely to guard your important work. Comes with 7 dividers with index tabs for easy filing and to keep floppies upright to prevent bending, warping, and scratching. Tough and secure metal lock never comes in contact with diskettes because it is enclosed in a special plastic housing. Super value at $23.95 for one, or $22.95 each if you buy 2 or more. Keep prying eyes and sticky fingers away from your data. Order today.

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Information Calls
(805) 524-4189
Central Computer Products

Central Toll Free Order Desk

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QX-10 Software

CP/M Prod. Description	List	Central
ASHTON TATE		
dBase II	$495.00	$368.00
ATI TRAINING DISKS		
CP/M	$ 39.95	$ 37.00
MBasic	$ 39.95	$ 37.00
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Punctuation and Style makes writing and rewriting much easier. Central's price for *Punctuation and Style* is $99. Experience the power of this valuable "Punctuation Checking and Writing Improvement Software" yourself. Order today to get this program fast.

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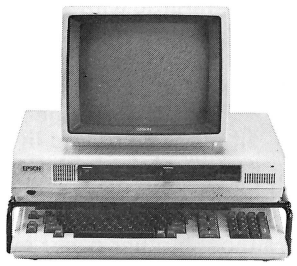
Perfect Epson Stand



Simple, strong, sturdy, safe. These words describe an attractive stand that provides a perfect spot to place your Epson computer and monitor on. This stand is made from rounded, steel rods covered with a thick, shiny, soft, black polymer material that protects your Epson and table top from scratches. Unlike flat wood or acrylic panels used in other stands, the tough supporting rods of the Smart Stand (TM) do not obstruct air flow. In fact, since your Epson is lifted off the table top and fully supported by this stand, air flows freely all around your computer to help keep it cool. When you're finished computing, you can slide the keyboard completely under the stand to create a working area on your desk. Incidentally, lifting your QX-10 off the table top makes it much easier to insert and remove diskettes out of the disk drives. The Epson Smart Stand is a super value at $34.95. Try it for 15 days. If not completely satisfied, send it back for a full refund. Matching 80 or 132 column printer stands are only $26.95. Order today.

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Keeping track of money is almost as hard as getting it. *Checks & Balances* is ideal for the home or business that is run out of a checkbook. If you can write a check, you can operate this easy-to-use program.

Checks & Balances allows entries to be divided between multiple categories; handles multiple checkbooks; includes flexible searching capabilities that locate records by date, number, or category; has commands that are all in plain English; and even comes with extensive on-screen help files that make it a pleasure to operate. It also allows easy checkbook reconciliation, records monthly budgeting for up to 64 user-defined categories, and has a super fast sort. Accepts checks written in any sequence.

Check & Balances is written in PL/I-80 and Z-80 assembler. Since it is already compiled, it runs very fast. The power, speed, and features of PL/I makes *Checks & Balances* a state of the art program that is much easier to use than similar programs with less features.

The list price of *Checks & Balances* is $54.95. Central's price is $52.00. This fine software will save you years of frustration in the management of your money. Order today.

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Hardware Review

ThinPrint

by Bob Hermann

SPEC SPOT

Product: Axonix ThinPrint 80S
Type: Portable, battery powered thermal dot matrix printer
Price: $279
Ease of Use: Good
Performance: Excellent
Documentation: Good
Summary: Rugged, truly portable printer with no frills
Manufacturer:
Axonix Corporation
417 Wakara Way
Salt Lake City, UT 84108

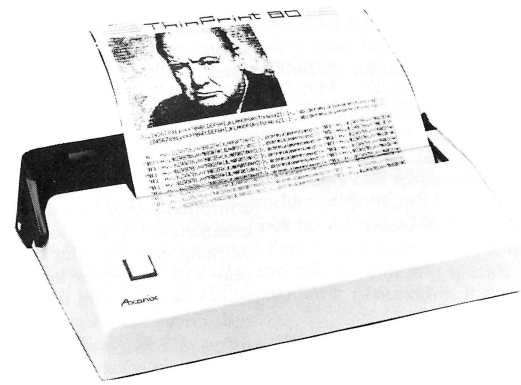
If you are looking for a battery-powered, 80 column thermal printer to accompany your HX-20 (or PX-8), give the Axonix ThinPrint 80S prime consideration.

A thermal dot matrix printer with rechargeable NiCad batteries, the ThinPrint 80S is a sleek, ruggedly constructed unit not offering any extra frills besides true portability. The Thin Print is capable of producing normal or compressed print, by either software or easily accessible switch control. The logic seeking printhead silently produces the 96 character ASCII set at 40 cps. With a 5X7 dot character matrix, the print produced is not letter quality, but is as easy to read as that of the HX's own microprinter. An internally located contrast control is provided. Software Graphics in either low resolution (480X7 dots per line) or high resolution (960X7 dots per line) are also software selectable.

A three and a half hour battery charge allows up to 40 pages of print to be produced. Power will not be wasted either, as a two minute period without any input into the 2K buffer will activate the power down mode of the printer.

Simplicity is quite evident in the design of the unit. No extra frills are available, but when one considers the purpose of such a device, no frills are really necessary. The only external control serves as a buffer reset switch and initiator of the self-test mode. There is no top of form setting, so the printer will produce output continuously with no regard to "pages". An external paper advance knob allows manual control of paper setting.

The thermal paper used with the unit may be ordered in rolls (80 pages per roll) or single sheets, with either blue or black image. They naturally suggest use of their Axion paper, although other paper may be used. Internal housing of paper rolls is consistent with the overall designed portability of the unit.



Two models of the ThinPrint are actually available — the 80S(serial) and the 80P(parallel). The serial model would of course be used with the HX (or PX). With baud rates of 300, 1200, 2400, and 9600 bits per second, the HX may then be hooked up directly to the ThinPrint with the Axonix manufactured cable (an additional $30).

An astute HX user will be aware of a problem here. The default baud rate of the HX is 4800 bits per second. Since no corresponding rate is available on the ThinPrint, any communications between the two will require the use of the "BLPSC" protocol formatting sequence. So if you have a program that presents output to the printer with a program statement like:
OPEN"O",#1,"COM0:", you'll have to set the ThinPrint to, say, 1200 baud and change the program statement to: OPEN"O",#1,"COM0:(48N15)". To list programs at 1200 baud would require: LIST "COM0:(48N15)". For SkiWriter files, you'll have to use the program on page 41 of the SkiWriter manual to set up the proper communications protocol. Follow the ensuing instructions for deletion of files to avoid frequent use of the program. The inconvenience that this shortcoming causes will be respective to the experience and needs of the individual.

The 30 page operating manual accompanying the printer is quite complete, even offering a few graphics mode "hints". It contains easy to follow instructions on changing paper rolls setting communications parameters, and even some communications trouble shooting advice.

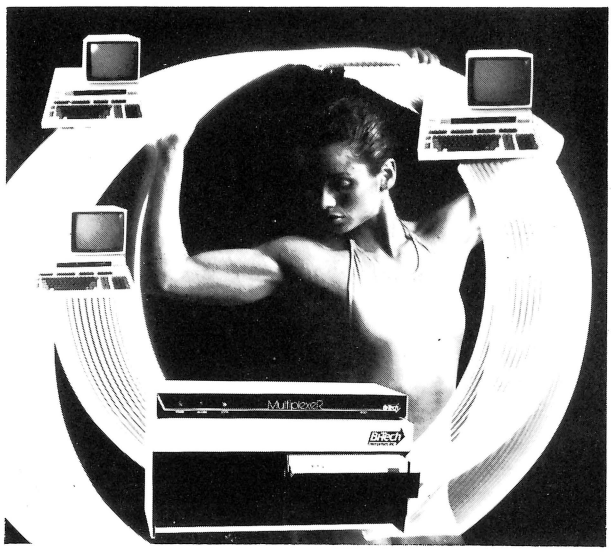
The size of the printer allows it and an unexpanded HX to fit in a normal sized briefcase. The necessary padding would have to be self-made, since there is no such item commercially available as of yet. Axonix does plan to release a carrying case for the ThinPrint itself.

With only two mechanical parts, NiCad batteries, internal paper housing and its extremely rugged design, Axonix has certainly created a unique portable printer. The hassle of not having a 4800 b.p.s. baud rate should not prevent one from purchasing it. We look forward to the new portable letter quality printer from Axonix, the Thintype.

▲ ▲ ▲

A powerful combination

The Epson QX-10



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EPSON QX-10 features:

- ☐ TPM/Valdocs support
- ☐ CPM 2.2 support
- ☐ DOS PLUS 4—TRS-80 compatable
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- ☐ MS-DOS 2.0 can share with IBM PC**
- ☐ Multiple operating system segments
- ☐ Variable segment size capability
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Software Review

THE HOME ACCOUNTANT Plus

by Larry Hufty

SPEC SPOT

Product: The Home Accountant Plus
Type: Accounting software
Computer: QX-10
Operating System: CP/M version 2.2, MBASIC, SUBMIT
Required Peripherals: 80 or 132 column printer with either parallel or serial interface.
Price: $150
Ease of Use: Moderately easy to use.
Performance: Very good, but slowed by MBASIC.
Documentation: Fairly well written with minor exceptions.
Summary: An extremely detailed home financial package although very slow.
Manufacturer:
Continental Software
11223 South Hindry Avenue
Los Angeles, CA 90045

THE HOME ACCOUNTANT Plus by Continental Software is a well rounded accounting program for the home user. It has numerous capabilities from simply keeping your checkbook, to monitoring an integrated flow of cash, checks, credit cards, assets, liabilities, income, and expenses. The system gives you the flexibility of defining up to 75 budget categories, while monitoring transactions separately.

THE HOME ACCOUNTANT Plus is a menu driven program written in MBASIC, which lends itself to slowness. Although the program is extremely well written, and is all encompassing, it can be, at times, painfully slow. The main menu gives you six major sub-routines, which are referred to as modules. They are The Budget Module, Transactions Module, Printed Reports Module, Graphs Module, Print Checks / Activity Report Module, and the Forecast Module.

THE BUDGET MODULE

This is actually the core of THE HOME ACCOUNTANT Plus. In this module, you actually set up your budget. There are five basic categories for transactions- Assets, Credit Cards, Liabilities, Income, and Expenses. You can then place up to 75 sub-categories within these five major ones. For example, under the major category of expenses, you might have rent, food, entertainment, computer expenses, etc. Once you have determined your budget categories, it is time to budget your income. Although this is not a necessity, it does help you keep better track of day-to-day expenses and income. One of the main features of the program is the ability to compare budgeted figures with actual figures as the month progresses.

THE TRANSACTIONS MODULE

The TRANSACTION Module is where data is entered. It is here that checkbook, credit card and cash transactions are recorded and assigned to individual budget categories. It also contains the "split transaction" that allows you to assign a single check to more than one category. A good example would be a credit card payment. Part of your payment goes to paying off the balance, and part pays the finance charge, which can be tagged as a tax item for use at the end of the year. By using the split transaction feature, you can write one check, yet assign different parts to different categories. As you make payments etc., each part of the budget categories are updated. For example, when you pay that credit card bill with a check, the balance of the checkbook is decreased and the amount owed on the credit card balance is also decreased. Or if you write a check for some cash, the checkbook balance will decrease, and the available cash will increase.

THE GRAPHING MODULE

This module is divided into three sections: bar graphs, line graphs, and trend analyses. The bar graph will display a comparison of budgeted amounts to actual amounts for a specific budget category. The line graph represents a point-to-point plot of the activity for any given category. A trend analysis graph not only shows a point-to-point plot of activity for a category, but also displays a linear regression line showing its historical trend.

THE PRINTED REPORTS MODULE

This module is an extremely comprehensive program for printing budget reports consisting of the names and numbers of budget categories, budgeted amounts, and actual amounts. It will print a personal balance sheet, detailing your assets and liabilities, and will produce a net worth statement. The report can be printed for one month or several months. This module will also generate an income and expense summary giving percentages between actual and total income. These reports are best printed on a 128 column printer. When I ran it with an

Con't on page 39

QUICK ACTION CARDS

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- ☐ Please call me with detailed information.
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- ☐ Please have your nearest dealer contact me.

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ADDRESS _____
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  Telephone Number (___) _____
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COMPANY NAME _____
ADDRESS _____
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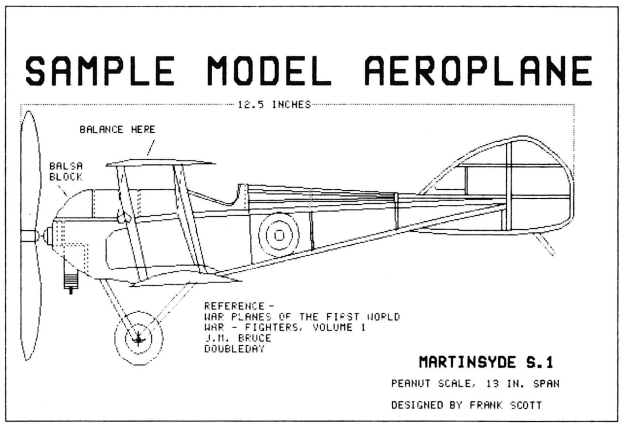
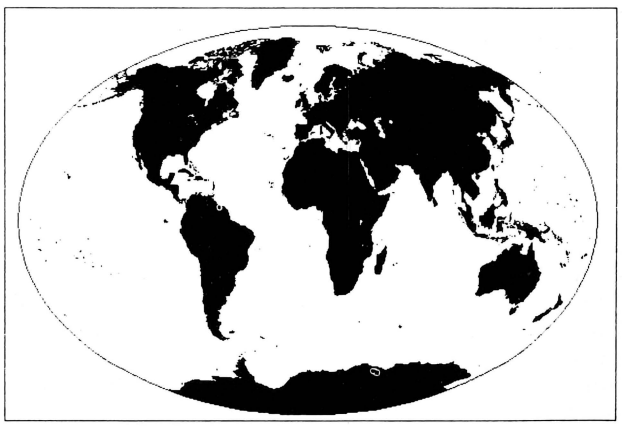
Con't on page 39

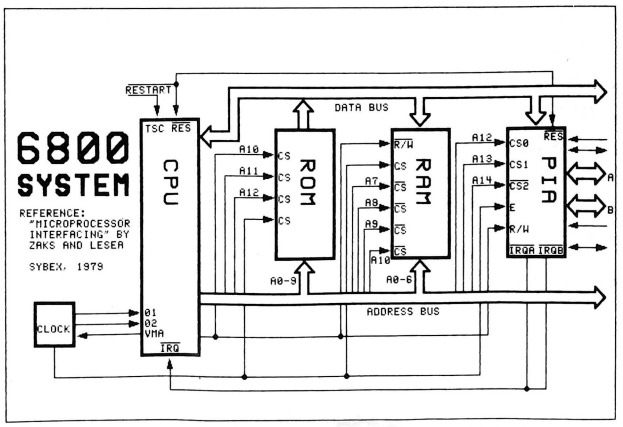
IF YOU OWN A QX-10, YOU OWE IT TO YOURSELF TO GET QXDRAW!

WHAT IS QXDRAW?

QXDRAW is a powerful graphics design tool that exploits the excellent graphics capabilities of the Epson QX-10. It allows someone unfamiliar with computers to design and draw figures, charts, schematics, or blueprints in no time. QXDRAW has the capability to store, retrieve, and print figures drawn on the screen. In addition, it can fully manipulate figures and text by changing size, angles, and dimensions.







QXDRAW —

- Provides an easy-to-use cursor that can be moved about the screen.
- Draws straight lines between points on the screen.
- Draws curves between points on the screen.
- Draws circles and ovals easily.
- Allows solid, dotted or dashed lines to be used.
- Allows lines of varying thickness to be used.
- Includes "area fill" capability.
- Features the Epson function keys: HELP, UNDO, STORE, RETRIEVE, PRINT, INDEX, and STOP.
- Allows text to be displayed at any location, size, or angle.
- Stores and retrieves the screen display on disk.
- Prints the screen display on Epson printers.
- Allows figures and symbols to be created, stored, and retrieved at any location, size, or angle.
- Allows text and figures to be slanted in any direction, giving modern or three-dimensional effect.
- Provides for user-created files to be input and displayed on the screen. This allows data from other programs to be used.

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ITE+ Chip

by Bob Hermann

SPEC SPOT

Product: ITE+ chip
Type: Communications
Computer: Epson HX-20
Required Peripherals: Microcassette drive and appropriate communications hardware
Price: $95
Ease of use: Excellent
Performance: Good
Documentation: Adequate
Summary: Good communications with a couple of unique capabilities
Manufacturer:
Transam Micro Systems Limited
59/61 Theobald's Road
London WC1X 8SF
England

Those who have had the opportunity to use both the SmarTerm II (by Doug Porath) and EpsonLink probably wish that someone would develop a program synthesizing the best features of these two programs. The ITE+ chip approaches this synthesis, offering most of the desired capabilities of the afore mentioned programs along with a couple of extra goodies.

The 15-page instruction book illustrates the installation of the chip in both an expanded and unexpanded HX. Keep in mind that in an unexpanded HX there is room for only one ROM chip, prohibiting simultaneous installation of the ITE+ chip and SkiWriter. In an expanded HX, the ITE+ chip will go in the expansion unit, allowing retention of SkiWriter.

After installation in an expanded HX, initialization of the computer reveals that two items have been added to the main menu: Editor and Terminal.

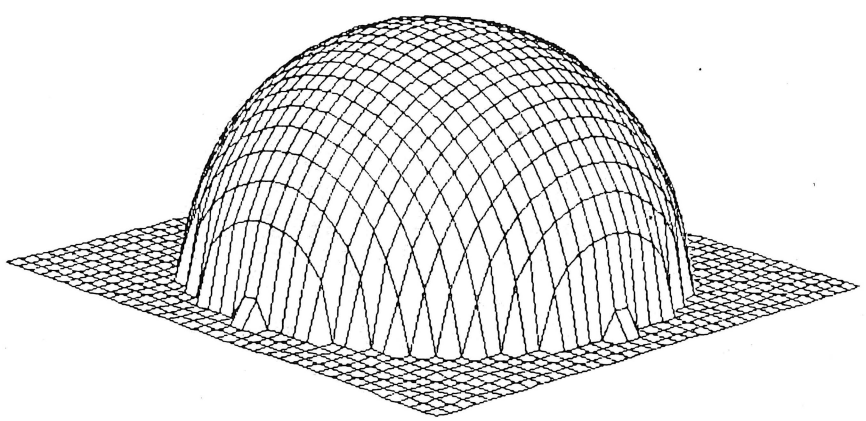
Entering Basic and doing a STATALL shows that 21090 bytes of free memory remain. Before using the newly installed program, it is necessary to clear a RAM file which the program will use for storing data. Do this by entering CLEAR 200,n (where n is a number up to 19000) while in Basic. The RAM file created may then be accessed through either the Terminal Emulator or Editor.

TERMINAL EMULATOR

Return to the main menu and elect option 5. The first display lists the program credits. The menu driven program then asks if you want to set up the various communications parameters. A no response will put you directly in the Terminal mode, while a yes answer results in a series of screens allowing you to set baud rate, word length, parity, stop bits, hardware handshake (x on/x off), printer type (microprinter or external parallel), screen follow, control code expansion, full or half duplex, and line feed. The uniqueness of two of the above options merits additional comments.

The screen follow option allows you to let the LCD screen scroll across the 80 column virtual screen that the program utilizes, or remain at the left most portion of the screen as data is received. When the screen scrolls across with the data it may slow down the transmission rate significantly. You may want to fill the buffer up and later inspect its contents while offline by electing not to use the screen follow option. This allows data reception at a faster (and maybe cheaper) rate. The control code expansion function gives you the opportunity to have the sending computer's control code mneumonics displayed on the LCD screen in their coded form, an option that could be of great assistance in solving communications problems.

The HX function keys (PF1, PF2 etc.) are used as control keys when in the Terminal program, allowing for: sending data out the RS232C port, copying incoming data into the RAM file, microcassette loading and saving of data, and printing the contents of the RAM file on the microprinter or an external parallel printer (if you have the



Transam parallel interface). The contents of the RAM file may be output to a serial printer by the Editor portion of the program.

The maximum RAM file created allows for retention of about four pages of data. When the buffer is full a message indicating this will briefly flash on the screen. The data already in the RAM file will remain undisturbed, while subsequent incoming information will not be stored. Once you have initiated retention of information in the RAM file there is no control offered by the program to selectively stop and then start saving data again. To do so it is necessary to exit from the Terminal Emulator or break off your transmission.

EDITOR

The Editor portion of the program allows you to edit data received in the Terminal mode, or create text of your own. To call this portion of the program an editor is somewhat of a misnomer, since the only editing features allowed are those of the HX itself. Like EpsonLink, using this Editor is much the same as using a typewriter. A high pitched beep sounds when column 75 of every line is reached. Automatic word wrap is available, but the documentation suggest the use of a carriage return if the created text is to be sent to a mainframe.

As previously mentioned, if you want to output the contents of the RAM file to a serial printer, you may do so in this mode. Microcassette loading and saving of data is also possible.

Perhaps the most exceptional, although not necessarily useful, feature of the whole program is the ability to output text to the microprinter sideways in 80 character column length while you are in the Editor. Election of this option causes text to be printed in 18 line by 80 character segments.

SUMMARY

One of the most appealing qualities of the ITE+ chip is the fact that it may be entered directly (as is EpsonLink), without fooling around with a tape (as with SmarTerm II). Another useful feature is that you may elect to not use the screen follow option and rapidly fill up your buffer (again without the tape delay required by EpsonLink). You don't have to worry about data being 'scrolled' out of your buffer (as can happen with SmarTerm), although you can easily miss the buffer filled signal and not realize that data is no longer being saved. You do not have the ability to load SkiWriter files (as you do with SmarTerm), and the text creating capabilities of the program are limited to typewriter-like functions.

It was noted that when file were output to an external serial printer, the last 1,000 or so bytes of data would not be printed. If the same file is output to the microprinter in the 80 character sideways format, the whole file will be printed. Several weird occurrences were also noted when trying to use the program with a SkiWriter file in the computer, leading to the occasional loss of a SkiWriter file. There is no allowance in the program for transfering files by Christensen protocol.

Anyone who already has invested in a communications program would not want to invest another $100 on this, unless there is a use for the unique capabilities of the program.

▲ ▲ ▲

News Notes

Con't from page 5

cleaning kit instructions on 'routine maintenance.' Stick to the 10-12 months, 30 seconds at a time routine or you may damage the drive."

■ Effective immediately, Epson America, Inc. has announced the price of the QX-10 system will be reduced from $2995. to $2495. Cliff Bream, director of marketing for Epson, said the 17 percent price reduction is "one of a number of strategic moves" Epson is planning "to make the QX-10 more competitive in the increasingly competitive personal computer market." Other enhancements are planned over the next "few months". These are scheduled to include "a new version of the QX-10's CP/M compatible operating system that will have greater graphics capabilities; an MS-DOS board that runs more programs than the existing version; a new version of VALDOCS, a proprietary integrated software program; a graphics program called Q-Plotter and a QX-10 version of a best-selling program called Typing Tutor." Typing Tutor is a product of KRIYA Systems, Inc., and has received numerous positive reviews on it's use with other computers. We certainly look forward to these enhancements.

■ A special newsletter for writers and editors is coming out from one of our own users. "Wordsmiths' Review" will be a monthly newsletter on tools and tips specific to the writer/editor computer user. For more information contact: Wordsmiths' Review, 22250 Capulin Ct., Woodland Hills, CA 91364. $50. one year, special sign-up now of $30.

■ What happened to my 1.19? I discovered an interesting feature that could have caused some problems for others also. I use various Epson printers, and set my 1.19 up for the FX printer. Now, Valdocs Version 1.19 automatically downloads the graphics character set to the FX printers on booting up. As most users have discovered, if your printer is attached, but either not turned on, or offline, Valdocs checks the status of the printer, and tells you it is not turned on when booting up. I took my disk and used it in another computer with an RX printer attached. It booted to the point of downloading graphics characters (just like it should FX was attached, and just stayed while continually advancing through the printer. Turning

Con't on page

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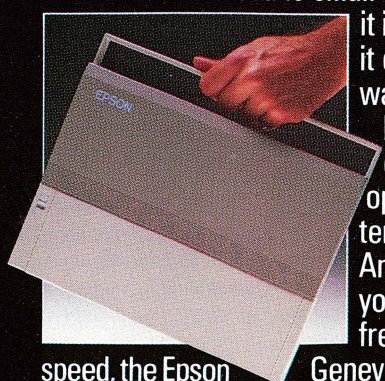

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size computer that's sexy like the $3000 H-P Portable... all for $995?

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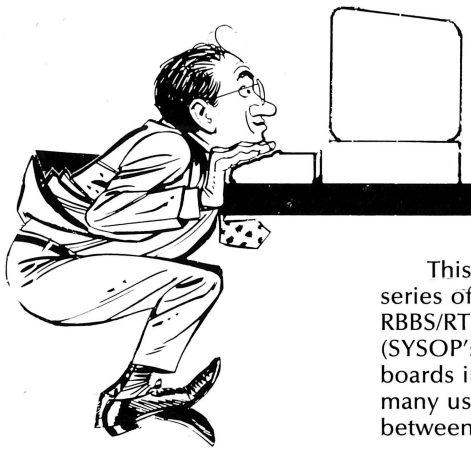
G E N E

Meet Your EpsonNet Sysops



by Franc LaClair

This is the second in a continuing series of interviews with EpsonNet RBBS/RTPM system operators (SYSOP's). Two of the more active boards in the "mid-west" (a term many use to describe that area between New York City and Los Angeles) are operated by our SYSOP's featured this month, Ron Spatafora and Mike Russell. Although their ages and experience vary considerably, they are both dedicated to providing the best possible service and support to their callers.

RON

Ron Spatafora, SYSOP of the Dallas RBBS/RTPM (1-214-881-0313) is really a delight to "chat" with, either on the "board" or via voice telephone. He has a sharp sense of humor spiced with a dash of salty vernacular. His "hacker" knowledge of the Epson QX-10 and other computers has been of significant assistance to both local and non-local users.

Ron's board is one of the most active in the network of EpsonNet RBBS's, logging approximately 1500 calls per month. He routinely spends 2-4 hours per night, and up to six hours on weekends attending to user's questions, messages, and updating the board.

He has installed a new XMODEM which permits 60 minutes total board time before XMODEM inhibits transfering (this will be a feature on all EpsonNet boards. His system has a QCS 20 megabyte hard disk system (which he "loves"), with over 9.5 megabytes and 300/1200 Baud capability. Ron has also installed a new DIR program that will help user's "walk through the user areas" of the board directory with greater ease and flexibility.

But let me digress for a moment... Ron originally was exposed to computing in the Air Force and later in his work at a co[illegible]y that purchased "Trash 80's" for [illegible]loyees. He started with a Model III, and "dumped it" [illegible]e saw the mark[illegible]g [illegible]res for the Epso[illegible]X-10 which [illegible]ased sight uns[illegible]n (and [illegible]t software!) in [illegible]uary 1983. [illegible]

ergonomics of the HASCI keyboard, large disk storage capacity, and, as he puts it, the "idiot proof" design sophisticated enough for the seasoned user. He was so thrilled with the machine, even without the operating system, that for two weeks he just turned it on to read the "Insert Disk" message! He notes that co-workers using TRS-80's made disparaging remarks, about Valdocs bugs ,"until they saw the graphics which" he says, "blew them away". Ron is currently looking for a flight simulation program that will use the superior graphics of the QX-10. He certainly has the credentials for an experienced evaluation, having graduated from Parks College of Aeronautical Technology with a B.S. in aeronautical engineering, and "over 1000+ hours of flight time as a Private Pilot and Flight Test Engineer".

Although he doesn't use his QX-10 often due to the heavy traffic on the RBBS/RTPM, he has been working recently with QXDRAW and Q-Plotter in CAD/CAM work. Ron feels these two programs are good in "exploiting the [NEC] 7220" graphics chip. Ron seems very excited about the upcoming ability of the QX-10 to use a "mouse" pointing device which he says is "an absolute must".

Like most of the EpsonNet SYSOP's, he is loyal and dedicated to the Epson product line, and EpsonNet Network. He does have a few comments about the direction he feels Epson should take in upgrading or changing Epson products. Ron believes Epson should be more open in sharing necessary information with users, and with third party software and hardware developers in order to expand the support for, and availability of, Epson products. He misses color and would like the ability (as most of us would) to use CCP/M.

Mike

The tendancy here is to say "he's a real nice kid". But Mike Russell, the SYSOP of the EpsonNet Kansas City RBBS/RTPM (1-913-642-8479) located in the Kansas City suburb of Leawood on the Kansas side of the river, would probably just write it off as an inane adult remark. True, he is young (14 going on 35), in the 9th grade, and no less knowledgable than many of the SYSOPs three times his age. Apparently his neighbors know of his activities too. When I called the right number and got the wrong party, they quickly rattled off Mike's number. He casually explains this away stating "they have a cordless phone which picks up my voice number, and the athletics place gets people who want the RBBS sometimes".

Mike seems to be well based in electronics. He is an amateur radio operator who gained exposure and experience in computing via his father's Earth Resource Data Corp., an infrared videotaping/digital computer analysis company for agricultural management. He began with an Apple II Plus, then talked his father into the Epson QX-10 "because it looked like a neat machine" which satisfied the technical needs of the company.

Since they purchased the QX-10 last August, Mike has become fluent in MBASIC, and knows "a little FORTH, some LOGO", and is learning assembler. He has written a "character creator" and print utility for the Dungeons and Dragons game for the Comriter II and Epson printers, and is working on a D & D adventure game, and a data base

utility. It will compile and sort by subject area the last six years issues of "Dragon Magazine". Mike also plays tennis, mows lawns, and candidly says he "likes to make money", currently helping his English teacher write a program for a cookbook. Mike also wrote a grading program for his mother's English and Spanish classes. He is quick to give credit to his father who re-wrote and improved it for the QX-10.

Mike is the youngest SYSOP in the EpsonNet Network, as well as in Kansas. Since beginning the RBBS in May, he has received over 100 calls per month. Most of his callers are local non-Epson owners. More Epson owners are calling every week. He would like to expand his [father's] system with a 55 megabyte hard disk reportedly being developed by Epson, and some type of pointing device ("mouse", joystick, or lightpen). He currently runs the standard dual floppy drives and a 300/1200 baud modem.

Mike features a daily rotation of utility, business and accounting, and game software, and encourages users to upload programs on the "miscellaneous day". In addition to the RBBS, Mike has just obtained a User Group kit from Epson and is looking for interested people in the Kansas City area. Call Mike at the EpsonNet Kansas City RBBS/RTPM from 5 p.m. to 8 a.m. Monday-Friday, or on weekends when the board is up 24 hours.

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Comments, criticisms, suggestions, and general feedback are welcomed by the author. Letters may be sent in care of the Editor of the EpsonConnection, or left on the SE Indiana RBBS/RTPM (812) 926-3396.

How to Use VALDOCS MAIL Over MCI

by Miles Hoover

If you subscribe to MCI or any other Alternate Long Distance (ALD) phone service AND own a Hayes Smartmodem, you can save a bundle if you are as garrulous as I am over the QX-10.

How to do it: Boot a modem program (such as MTERM or QXMODEM) which gives you easy access to terminal mode on the QX-10. Address the Hayes while in terminal mode by typing the following:

+ + + AT S8=8 (CR)

(PLEASE OBSERVE THE SPACES; THEY ARE CRITICAL)

This procedure sets the comma register (S8) of the Hayes so that a

Con't on page 38

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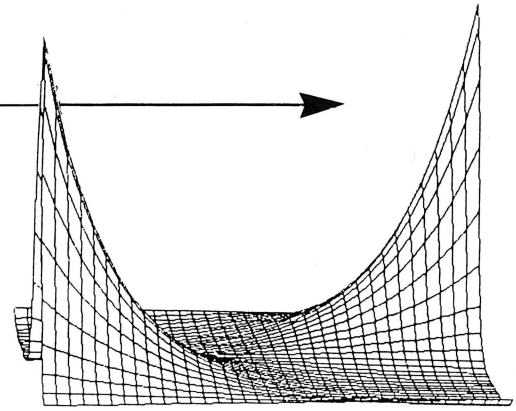
Hardware Review

QUBIE 212A

by Ron Spatafora



SPEC SPOT 987-9141

Product: QUBIE 212A / 1200E Modem
Type: 1200 Baud Lighted "Smart Modem"
Operating System: Tested using TPM, CP/M A and B, Valdocs
Required Peripherals: RS232 Cable
Price: $329
Performance: Full-function
Documentation: Excellent
Summary: Qubie is an inexpensive alternative to the Hayes SmartModem for the Epson computer owner.
Manufacturer:
QUBIE Distributing, Co.
4809 CALLE ALTO
CAMARILLO, CA. 93010

This is the third modem I have run thru full beta tests that meets the requirements necessary to function with the QX-10 and PX-8 utilizing TPM, CPM ("A" AND "B" versions), VALDOCS MAIL and MODEM 7XX. First glance at the QUBIE reveals something familiar... it looks like a gold annodized version of the Hayes Smartmodem. It indeed is the same size and weight. As far as features, it has all the ones found in the Hayes with a few differences. First, QUBIE added the extra phone jack allowing the user to connect his phone instrument without the inconvenience of a "T" connector at the wall outlet. The QUBIE uses a Piezo type speaker which doesn't have the fidelity of those modems with a conventional magnetic speaker. It is not necessary for a speaker equipped modem to have a high fidelity transducer, because it's only function is to permit aural monitoring of a call. In this aspect the 212A/1200E's performance is quite acceptable. The DIP switches for modem configuration are found behind the front panel, the same as the Hayes'. Here too is a difference from the "original," the QUBIE face plate is held on with two phillips screws. I actually prefer this form of access to that of scratching the unit or poking oneself while removing the side catches of the front plate. The DIP switches are identical to Hayes and are set the same way.

									not
SET:	UP	UP	DN	UP	DN	UP	DN	DN	used
DPSW:	1	2	3	4	5	6	7	8	9

Users will find, 8 lights which represent modem, terminal, and call status: HS, AA, CD, RD, SD, TR AND MR. The QUBIE follows convention with a calculator power module which drops the 117 VAC power to 12 VAC. The only difference here with the Hayes, is that the module on the QUBIE is larger. Heat was of some interest during testing, the QUBIE case became very warm to the touch. I compared it to the Hayes SmartModem II on my RBBS and found it too was quite warm. Both units use the case as a heat sink, so one need not be concerned about this. Standard features are: auto-answer, 1200/300 Baud operation, full Hayes command set and a volume control. QUBIE also includes PC-TALK III, and a very well written manual. Conclusion: I am pleased to recommend the QUBIE 212A/1200E. As an alternative to the Hayes Smartmodem II at less than half the retail price.
I reiterate my previous comments regarding modems and Epson computers... beware! The only modems we have found to work flawlessly with the QX and PX are the three aforementioned modems.

Modem Lights

Numerous users have questioned what the lights on various modems do, and what are they good for. First we'll define the light-letter designators most commonly used on modems:

HS — High Speed (1200 baud if *ON*, 300 baud if *OFF*, this light comes with 1200 baud modems only).
OH — Off Hook. This is an indication from the modem that it has "picked up" your phone.
CD — Carrier Detect. An *ON* indication means it has linked onto another modem's carrier.
RD — Recieve Data. *ON* tells you that you are receiving data.
SD — Send Data. Like **RD**, execpt you are the one sending data.
MR — Modem Ready. For most high quality modems, this means the modem is functionally OK, and is on line.
TR — Terminal Ready. Normally this means your computer is telling your modem that it's OK and online, but not always!
AA — Auto Answer. This light can be found on those modems that have a feature to automatically answer the phone when called.

That gives you an idea of what all those letters mean. Now what is "normal operation" for a given modem mode? When you first turn on your your modem, depending upon your dip switch setting, you will see the **AA** and **MR** lights come on. If the computer is on, within a second the **TR** light will eluminate. For the QX-10 the **AA** light will not be lit because the QX-10 has software built-in to auto answer. (Note: all the lights, on some modems, when first turned *ON* will momentarily flash, that is proper), additionally, the **HS** lite will be *ON* if you have a 1200 modem and the software you are using is set for 1200 operation.

▲ ▲ ▲

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all day sunday

NORTH WESTERN

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206-325-1325
24 Hrs 7-Days

Port Orchard, WA
206-876-9053
7PM-7AM 7-Days

NORTH CENTRAL

Madison, Wisconsin
608-233-1111
10PM - 2AM Mon-Sun

Milwaukee, WI
414-291-5011
6PM-8AM Mon - Fri
4 Hrs. weekends

*Aurora, Indiana
812-926-3396
7AM-7PM Tues-Sun

*Wauwatosa, WI
414-476-2995
12PM - 4PM M-Sun
6PM - 12AM M-Sun

Indianapolis, IN
317-881-3849
M-Sun 9PM - 5AM
Sun. -2PM H.D.

Leawood, Kansas
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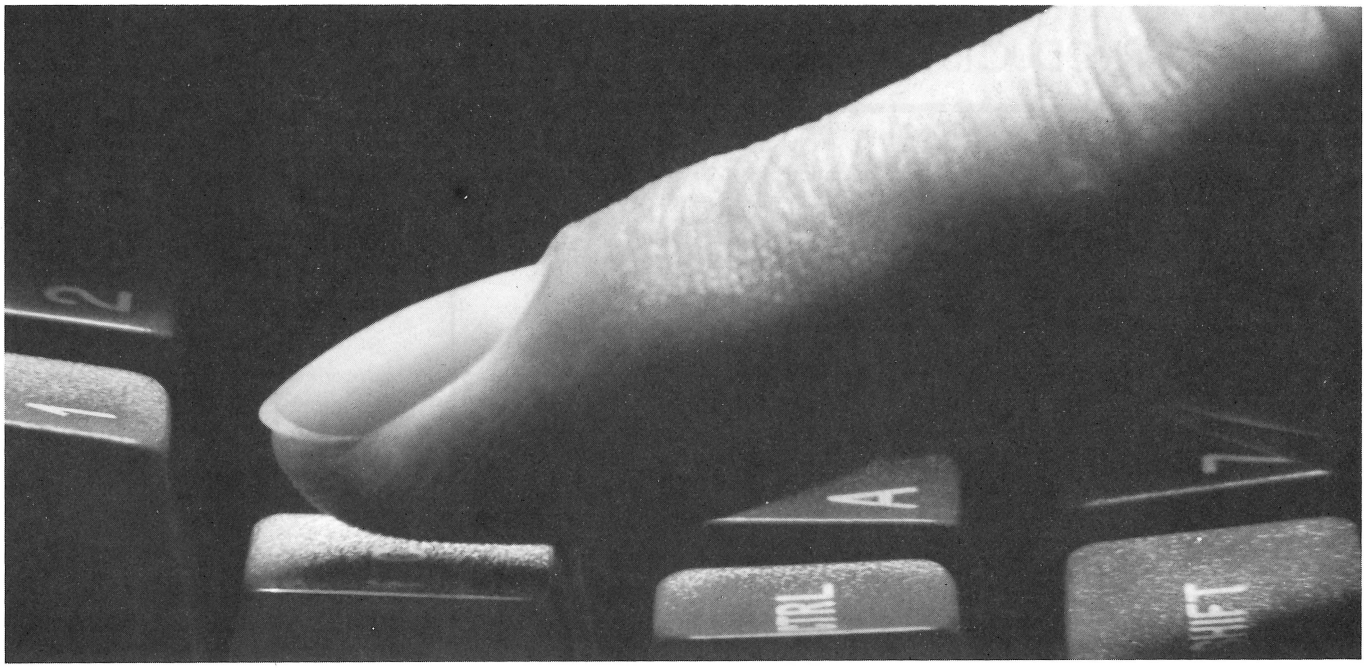

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QX-10

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This book was previously called, "The QX-10 Book, Series II". All prepayments for this book will receive "The Complete Epson Computer Primer", which is scheduled for release concurrently with Valdocs 2.

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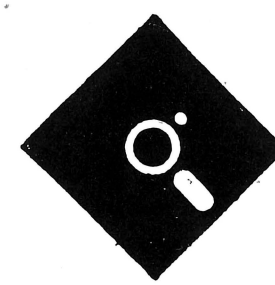
Disc of the Month

EC-4
Volume 4

This volume contains BASIC games. The program name should give some insight as to the nature of the game. In order to run any BASIC file you must first load MicorSoft BASIC, (MBASIC) which was included in your CP/M package when you bought your QX-10. Then you can load and run the programs on this disk.

To order, send a check to the EpsonConnection, P.O. Box 14027, Detroit, MI 48214. Be sure to indicate the disk No. EC-4 on your check.

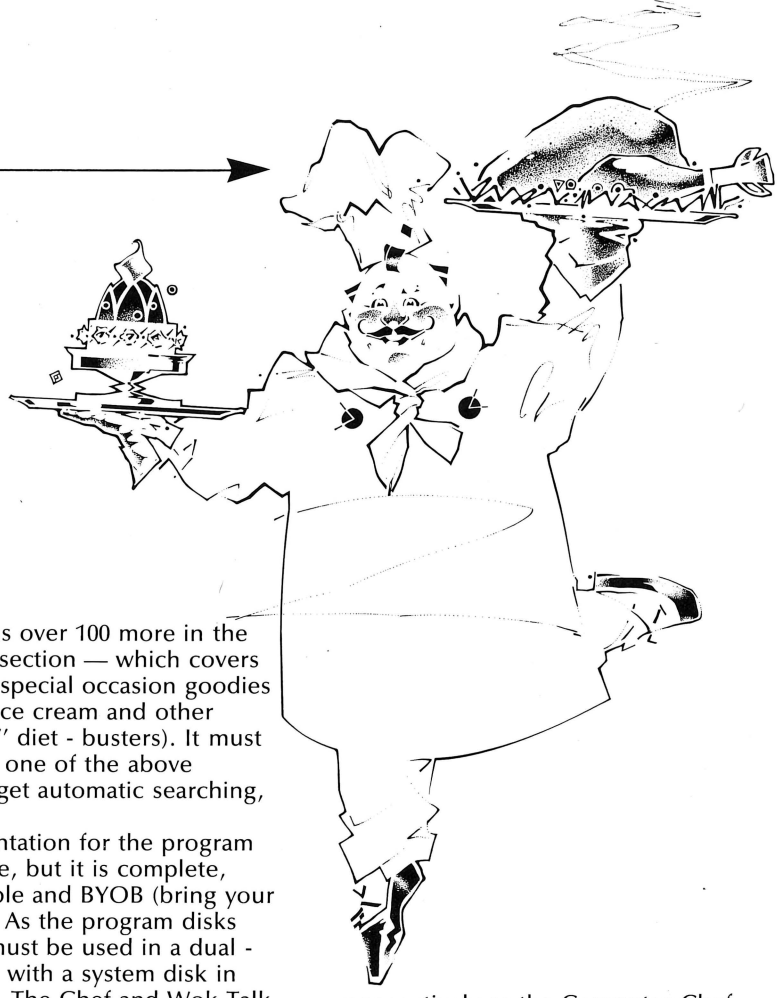
JUNGLE.BAS
KING.BAS
KINGMKR.BAS
LINEDRAW.BAS
LITQZ.BAS
MANSION.BAS
MAZE.BAS
MONOP.BAS
MONOP.DOC
MONSTER.BAS
MONSTER.DOC
MUGWMP.BAS
NUCREAC.BAS
ODYSSEY.BAS
PICTUR.BAS
PMAZE.BAS
POET.BAS
POKER.BAS
PRIME.BAS
QUBIC.BAS
QUEST.BAS
REVRSE.BAS
ROCKET.BAS
ROCKT1.BAS
SCALE.BAS
SHUTTLE.BAS
SMURF10.BAS
SNOOPY.BAS
SOUNDS.BAS
SPACEWAR.BAS
SPEED.BAS
SPORTS.BAS
STARINST.BAS
STARS.BAS
STARTREK.BAS
STARTREK.LBR
STARWARS.BAS
STOCK.BAS
STRTRK.BAS
SWARMS.BAS
TAKEAWAY.BAS
TDRILL.BAS
TENDER.BAS
TENNIS.BAS
TICTAC.BAS



Software Review

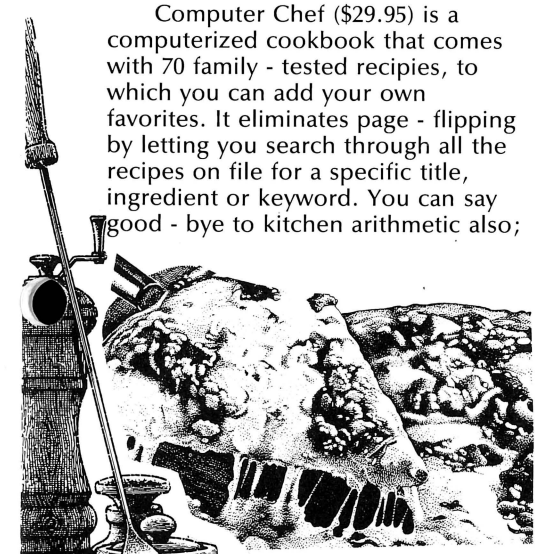
What's Cooking?

by Ken Fermoyle



If you'd like to cook up something special on your QX-10, Software Toolworks has a tasty suprise for you: software programs with menus that really are menus! The Sherman Oaks, California, firm offers a series of three programs aimed at the gourmet / gourmand set. They run on the QX-10 under TPM or CP/M.

Computer Chef ($29.95) is a computerized cookbook that comes with 70 family - tested recipies, to which you can add your own favorites. It eliminates page - flipping by letting you search through all the recipes on file for a specific title, ingredient or keyword. You can say good - bye to kitchen arithmetic also;



Computer Chef scales recipies automatically, on request, to fit quantities available or portions needed.

The Best Wok Talk ($29.95) makes Chinese cooking more scrutable! It combines technology and the culinary expertise of Wak Talk editors to bring you more than 100 recipes and a 22-page primer on classical Chinese cookery. It has the Computer Chef search and scaling features.

What's for Dinner? ($19.95) includes more than 100 main and side dishes in its Let's Eat in Tonight database, plus over 100 more in the Secret's Out section — which covers desserts and special occasion goodies (homemade ice cream and other "sinfully rich" diet - busters). It must be used with one of the above programs to get automatic searching, scaling, etc.

Documentation for the program isn't elaborate, but it is complete, understandable and BYOB (bring your own binder). As the program disks come, they must be used in a dual - drive system, with a system disk in the left drive. The Chef and Wok Talk manuals explain how to add CP/M to make them bootable system disks using the SYSGEN utility; easy to do, even if you haven't tried it before. I also used the TPM system with Chef and Wok Talk, using COPYDISK.

Like their documentation, the programs don't have any fancy graphics or gimmicks. They just do the job, taking you through the process of selecting and altering recipes easily, if not at great rates of speed. Searching for recipes is done at a leisurely pace.

I was not able to add recipes using Valdocs. Recipe lines must be flush left to be picked up during the search process; and the left margin can't be set ro the first column in Valdocs. I did enter recipes using the CP/M ED command, but that's the hard way. I also entered recipes successfully using my CP/M based PeachText word processor. Remember to number recipe files consecutively as the Computer Chef guide describes, whichever way you enter them.

My wife and I collect Cookbooks, have taken and helped teach cooking classes, and have co-authored a number of magazine articles on cooking, so we approached these programs with special interest. We had considered setting up our own cookbook files, but a trial using a database program proved that route would be more trouble than worthwhile. We find the Computer Chef approach to be simple, yet effective.

You should heed the caution about cutting down the amount of spices when a recipe is scaled up substantially (to make two or more times the original quantity). Some other ingredients; baking powder or soda, for example; don't necessarily scale up or down proportionately. Use care in changing amounts for recipes that include such ingredients.

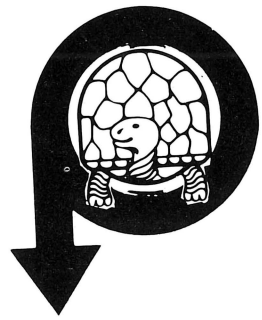
The creators of these programs had either a great sense of humor, strong sense of caution, or both. The CHEFUNIT.TBL file lists ingredients not to be divided. One such item obviously is eggs. Another is rattlesnake! You sure wouldn't want to try dividing a live one.

Software Toolworks, 15233 Ventura Blvd., Sherman Oaks, CA 91430.

Software Review Part 2

TLC-Logo

by Judy Pope



SPEC SPOT

Product: TLC-Logo
Type: programming language
Computer: Epson QX-10
Operating System: CP/M-B (included on disk)
Required Peripherals: none.
Price: $100.
Ease of Use: moderately difficult for non-programmers, but with numerous error and help messages.
Performance: impressive; fastest turtle graphics I have seen.
Documentation: extensive. The primer is well over 300 pages long, with numerous well-annotated examples and a lot of background history and philosophy. The reference manual is 124 pages long, well-organized and comprehensive.
Summary: an excellent "tool to think with."
Manufacturer:
The LISP Company
PO Box 487
Redwood Estates, CA
95044

INTRODUCTION

In July , we presented a general picture of the Logo language of today, and concluded with a review of Acorn's **Logo Professor** for the QX-10. As a dedicated Logo enthusiast, I had long been waiting for a version of Logo to take advantage of the excellent graphics and processing capabilities of our QX-10. Acorn's Logo is basically an Apple Logo clone with Epson bells and whistles. This month's article is about the only existing 2nd ge- -ation Logo — **TLC-Logo,** by -llen of The LISP Company. -hn Allen has been deeply -d with LISP (the Artificial - langua- which -go's de- -ment) for - Hig- , **Anatomy** textbook for examining the mathematical basis of LISP. In 1979, he served as guest editor for **BYTE** magazine's issue on LISP, and since that time has implemented several versions of LISP and Logo for micro-computers. He developed **TLC-Logo** to correct the serious flaws he found to be the rule in existing versions of Logo, and as a gateway to thinking about the computer programming languages of the future. He has also written, **Thinking About [TLC] Logo** with Ruth Davis and John Johnson, a book which demonstrates the difference between [TLC] LOGO and what they call plain vanilla Logo.

It is not often that microcomputer users are able to directly experience the state of the art (advertising hype to the contrary!) and **TLC-Logo** allows us to do just that. This sense of excitement overrides any possibly valid criticisms about the packaging of this implementation. The lack of polish is far less relevant than the glimpse it gives into the potential of 5th generation computing languages. It is truly a language for learning about computing.

TLC-Logo represents an evolutionary development in software design. The major reason for its existence is to allow the user to think "unthinkable thoughts." Throughout the massive documentation, well over 400 pages, the reader is urged to think deeply about the issues behind the examples and consider the effects of various programming language styles. The issue of procedural vs functional and relational languages is just one of many brought into focus by means of numerous annotated TLC examples throughout the primer.

These working examples are given for the express purpose of 'style' — the user is urged to examine, modify and add to them, paying attention to his own programming style. The LISP Company's emphasis on what they call stylish programming, rather than either of the usual extremes of structured programming or hacking a solution, is a well reasoned approach to the productivity/ creativity dilemma.

SPECIFICS

TLC-Logo is a fully-functional programming language with impressive capabilities, both for the first-time user and for Logo experts.

Turtle Graphics: In addition to drawing lines and printing words on the graphics screen, TLC turtles can lay down tiles of any shape. They can also change their own shape for arcade-style animation. There is no absolute limit to the number of turtles you can hatch. These turtles can each operate independently in an elementary simulation of parallel processing. This hybrid design is included to give a taste of the capabilities of hardware advances on the horizon, and the documentation examines it in depth with a fascinating blend of down-to-earth and philosophical speculation.

There are several disk files of turtle graphics functions included

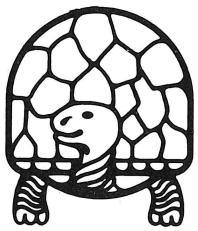
with TLC-Logo. One of them is the classic Four Bugs problem, which was beautifully illustrated on the cover of BYTE's Logo issue. The documentation for this problem leads from TLC's elegantly simple solution to the Archimedean Spiral and the value of using multiple coordinate systems. It concludes with a discussion of message-passing in the TLC Class System.

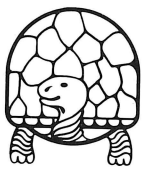
Editing: Besides the EMACS-based editor which is part of most Logos, TLC has a unique feature which allows the user to move freely back up to previous command lines remaining on the screen, picking up pieces to re-use or add to a function definition. This makes editing even faster and more convenient than in other versions of Logo. Another of the disk files you will receive is the Shape Editor; with this it is possible to define your own turtle and tile shapes.

CP/M-B: The disk you receive is not copy-protected, nor is it written with a locked, mysterious operating system that you manipulate at your own risk. You are free to make copies for your personal use, and since it uses CP/M-B you can do any of the ordinary file transfers, printing, etc. available to you (depending, of course, on your level of familiarity) with CP/M.

You can use the function-key modification and custom keyboard options in CP/M-B to customize TLC-Logo in any way you like. For example, instead of calling SETUP with the <HELP> key, I programmed it to print TLC's help command. Now I just press <HELP> and it prints help (cursor stays here); then I type the word in question, press <RETURN>, and it calls up TLC's help text on that primitive. CP/M utilities can also be linked into Logo, though this feature is undocumented and requires a bit more ingenuity on the part of the user.

Documentation Examples: A most useful feature of the extensive documentation is the abundance of annotated examples. There is a large section of sample functions written in Logo which emulate primitive commands. These are examined in detail, and include lots of suggestions for customizing them for your own purposes. In several places in each chapter there are problems for the user to work





out. The questions and unfinished examples are far more thought provoking than the usual rigidly-stepped tutorial, which is often inappropriate for the majority of readers, being either too basic or far too advanced for the beginner. The polite assumption behind the philosophy, that each person should advance at his own speed, and in the direction he chooses, is appreciated.

Packages and Controlled Sharing of Names: Using several message-passing operations, programmers can create user areas fully protected from each other. This simplifies debugging and permits the establishing of libraries of reusable code. These elegant operations are directly related to the Smalltalk class system and LISP's 'machine flavors;' and are indicative of the uncommon flexibility of **TLC-Logo.**

LISP transparency: For those of you who have been intimidated by LISP's infernally stupid parentheses, **TLC Logo** will provide an easy entry point into that world. TLC functions are, for the most part, identical in effect to those in modern LISPs, with the simplified syntax and helpful error messages (as well as turtle graphics) that are the hallmarks of Logo. Many of the advanced features of this version are unavailable in any other language except LISP. This is what distinguishes TLC from all the first generation Logos on the marketplace.

COMMENTS

The documentation was clearly **not** written for the average user interested in canned software, but instead for those willing to work at learning this sophisticated language. The author somewhat unrealistically suggests that you read through most of the documentation before beginning to use the program. If

you take the time to do that, you will find most of your questions answered. However, your natural urge to experiment will, sooner or later, overcome your good intentions. At that time you may discover that there are many obvious basics that could be explained more fully; beginners could easily give up before finding the one and only place some of these are mentioned. The pages in the primer are only numbered within each chapter and the index only refers to the Reference Manual, it can be difficult to find those crucial references a second time.

Beginning programmers will probably want to buy *Thinking About [TLC] Logo,* since that starts with a preliminary exploration into the basics of Turtle graphics. The book is filled with lively illustrations representing the authors, their animal friends, and the metaphysical concepts they would like you to ponder. One of my favorites, in Chapter 7, is a sketch of a pair of parking meters, a normal one next to a grotesquely curved one which has no [illegible] and is standing in a bucket of [illegible] one is saying to the other: "[illegible]"

TLC-Logo

parameter! These terrible puns actually do serve to lead you 'On towards introspection,' which is also the title of that chapter on the development of a self-modifying introspective Logo system! Thinking about Logo is the declared intent of this book as well as of **TLC-Logo** itself. The authors have equipped you to explore Logo's abstract ideas, but they want you to do the rest:

> The way to believe in computational ideas is to work with them, and thus we leave holes for you. TLC-Logo is Swiss cheese, not imitation processed dairy substance. *[Thinking About [TLC] Logo,* p. 167]

Thinking About [TLC] Logo — A Graphic Look At Computing With Ideas By John R. Allen, Ruth E. Davis, and John F. Johnson New York: Holt, Rinehart and Winston, 1984 ISBN 0-03-064116-0; $17.45 (softcover)

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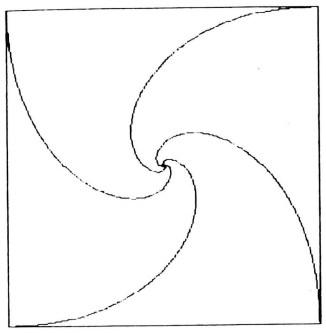
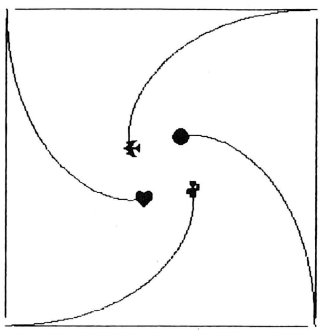
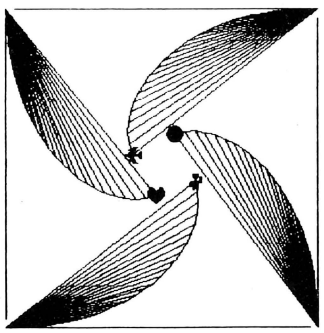


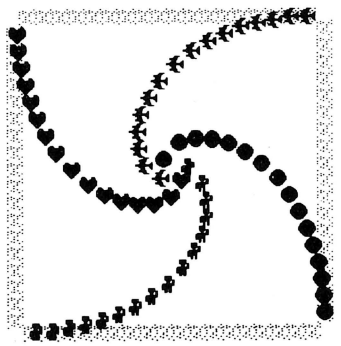
1. The Four Bugs Problem, showing the Archimedean Spiral paths for each bug.



2. The man chases the sun chases the airplane chases . . .



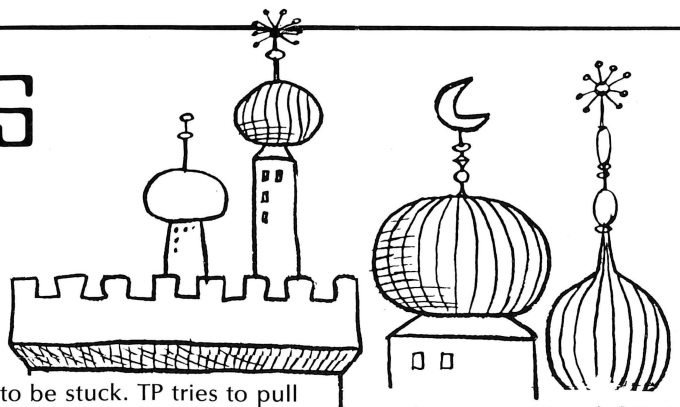
3. Here the trails are emphasized with lines to each point of origin.



4. This time our "bugs" lay down trails of tiles as they chase each other.

VALBOTS
Part 4

by Carolyn McCarthy



Last episode TP began his journey down the yellow baud road to Valtopia. He spots an unusual shape by the edge of a cornfield. There are some buttons on it's jacket; a black one labeled HELP, and a red one that says STOP. TP halts to examine the form, and suddenly it rights itself and speaks. "Oh help me! I just don't know what to do." TP introduces himself, and learns the name of his companion is Henry Asci. Henry explains that he seems to be lost, and doesn't know what to undo. He wants very much to make the right decisions, and become intelligent like everyone else. TP welcomes Henry and suggests that perhaps he will find what he seeks in Valtopia.

They journey on through the afternoon until they hear an awful creeching sound. Hovering around a [illegible] spies his helper Valbot. He seems to be stuck. TP tries to pull him loose, but Valbots insists, "Push to start." Upon doing this, Valbots starts spinning around and around. TP and Henry grab him and ask what the problem is. He replies that he seems to have a slipped disk, and can't get straightened out. Valbot then joins TP and Henry on their journey.

As dusk approaches they see something glowing brightly ahead. Approaching slowly they see a creature with a very large green eye. The creature seems to be cowering by the side of the road. They approach boldly and ask "Who are you?". It fades backward into the bushes and whispers "I am called CRT". TP asks why it is cowering so. CRT explains that he was attacked by JP the wicked critic of the West. "Well, come with us to Valtopia and perhaps you too can find what you need."

Together this assorted group journeys onward. At last they reach the gates of the city. A knock on the gate brings forth a query from within, "What is the password?" As they huddle to discuss different possible words TP sneezes, "E..EH..EP..SOOON", and the gates magically open. Immediately they proceed to the palace of the Wizard. Will they find 2.0? Will their problems be solved? Will they get the help they seek? Stay tuned...

▲ ▲ ▲

Book Review

by Mike Russell

How to Create Your Own Computer Bulletin Board by Larry L. Meyers, copyright 1983. Published by TAB Books, Inc., Blue Ridge Summit, PA, 17214. This book retails for $12.50 and may be ordered directly from the publisher. It is available at some B. Dalton Book Stores.

I would recommend this book to anyone interested in Computer Bulletin Boards. The information is presented in a straightforward manner, beginning with a discussion of modems, operating systems, computers, and software. The book discusses the planning of your CBB, including such topics as features of your board, type of programs, and caller interaction. It explains file handling and transfer, and carrier detection techniques. A brief, but informative summary of programming techniques is included covering; variable handling, program comments, and using machine language calls via BASIC. There is also a chapter about errors, debugging, error trapping, and errors in communication. The last chapter of the book itself is on special features, like chatting with the sysop, bulletins, down & uploading, and on-line gaming. Part II includes three chapters on Putting Your System Together. There is a TRS-80 bulletin board program listing, and following that is a bulletin board program for the Apple computer.

My only complaint is that there are only 58 pages of actual text. The rest of the 216 pages are all programs. A problem for QX-10 users is that the book only deals with the Radio Shack TRS-80, Commodore Business Machines' VIC-20, Commodore 64, and the Apple II series of computers. The modems talked about are old fashioned 300-baud, manual modems, and there is no mention of 1200 baud, auto-dial, and other modern features of the Hayes Smartmodem 1200 and others. Despite its shortcomings, the book is a good reference source and place for getting ideas. The book is centered around the intermediate computer enthusiast, and it may be beyond the scope of beginners and boring to more advanced programmers.

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BASIC CORNER

The Basics of BASIC

by George Puckett

I hope you've had fun with the program we presented in last month's column. I promised to delve into the mysteries of the FOR-NEXT loop this month. It's a little more complex than some of the previous statements we've covered, but it's so powerful that it's well worth spending some time learning and understanding.

In last month's article, we used a combination of the IF-THEN and the GOTO statements to 'loop' through our program several times and, when a certain condition was reached, to stop the program execution. Let's start off with a little program designed to print out a multiplication table. If you're not already familiar with a FOR-NEXT loop you'll have to look at the program and read the text following for the explanation.

```
10  PRINT TAB(10);
20  FOR X=1 TO 10
30  PRINT TAB(10+((X-1)*5));X;
40  NEXT X
50  PRINT
60  FOR X=1 TO 60
70  PRINT "-";
80  NEXT X
90  PRINT
100 FOR ROW=1 TO 10
110 PRINT ROW;TAB(10);
120 FOR COLUMN=1 TO 10
130 PRINT TAB(10+((COLUMN-1)*5));ROW*COLUMN;
140 NEXT COLUMN
150 PRINT
160 NEXT ROW
170 END
```

Have you noticed that these programs are getting bigger? Let's start our analyzation of this program with **line 10**. I used the 'TAB' function to cause the next printable item to start at column 10 on the screen or paper. The format of the TAB function is as follows:
TAB(<column number>). The number inside the parenthesis can be either an actual number like 15 or 23 or it can be a formula which will result in a number as in lines 30 and 130. If the print-head has already passed the column indicated in the parenthesis, then it is ignored. You also will note a 'trailing semicolon' after the TAB function in line 10. This has the effect of telling the computer, "after you have moved over to column 10, please stay on the same line and print the next printable item starting at this position." You'll notice that I use this 'trailing semicolon' frequently in this program. Keep this explanation in mind because it'll make some of the techniques used a little more understandable. The next line, **line 20**, is the first use of the FOR-NEXT loop.

FOR <variable name> = <starting value> TO <ending value>

The FOR-NEXT statment is used to set up a section of instructions in the program which will be repeated (loop). In the case of our program you will use the FOR-NEXT loop to repeat certain program lines a stated number of times.

The logic of the FOR-NEXT statment is as follows. First the loop variable (in our case ROW, COLUMN, and X) is set to the start value, (all the variables in our program start at 1). The ending value of the variable is also stated in the for statment. When the program reaches a line with the command NEXT, it adds one to the value of the variable and checks to see if it is higher than the ending value you set. Eg: line 20, the ending value is 10, For X=1 to 10. If X is not higher than the ending value, the next line executed is the statment immediately following the FOR statment. When the loop variable gets larger than the ending value, the next line to be executed is the one following the NEXT statment. When X=11 in line 40, we go to line 50.

In **lines 20,30, & 40** we have created a loop to print out the top 'heading' line of the table. What that odd looking formula in **line 30** is all about is to cause the output to be evenly spaced and perfectly lined up into columns. It causes the numbers to be printed at position 10, 15, 20, 25, etc.... You can see that **lines 20, 30, and 40** cause the computer to execute line 30 (or whatever is between the FOR and it's corresponding NEXT) 10 times. This gives us the 10 numbers across the top of the table. There must be a NEXT statement to go with every FOR statement in your program, or you'll get an error when you try to run your program.

Remember that 'trailing semicolon' I talked about earlier? Well, **line 50** is designed with that semicolon in mind. The semicolon causes the computer to stay on the same line rather that start a new one, as is usual. When we've finished printing the 10 numbers across the top of the table we need to start a new line and 'cancel' that semicolon. A PRINT statement with nothing else on the line will normally just print a blank line. In this case that is just what we need to cancel the semicolon. Lines 60, 70, and 80 print sixty dashes to form a border line across the top of the table.

There are two loop variables, ROW and COLUMN. **Line 100** sets the outer loop variable, ROW, starting at one and ending when ROW is greater than 10. **Line 110** prints the current value for ROW at TAB 10. **Line 120** sets up an inner loop variable, COLUMN, starting at one and ending when COLUMN is greater than 10. **Line 130** calculates the new TAB, and prints the product of ROW * COLUMN there. **Line 140** adds one (1) to the previous value of COLUMN, and as long as that new value is not greater than 10, returns the execution of the program to line 120. This is called looping, and this inner loop must execute 10 times before COLUMN will be greater than 10. When COLUMN = 11 then the program will go on to line 150.

Line 160 adds one (1) to the previous value of ROW, and as long as that new value is not greater than 10, returns the execution of the program to line 100. This process repeats until ROW is greater than 10, and we reach **line 170** END.

Remember to keep the COLUMN loop completely inside the ROW loop; never get one out of order or BASIC will call you nasty names. Well that's it for this column. Try this program out and see what you can do with it. Vary the numbers in the TAB formula in lines 30 and 130 and see how that affects the spacing. You might also try deleting line 50 and see how important it is to cancel trailing semicolons (or trailing commas). Happy Computing!!

▲ ▲ ▲

Technical Notes

by David Crotty
South Eastern Michigan Epson Forum Users Group

Televideo Control Codes

For those who have just started programming in BASIC, Pascal or other languages, the TVI-920 keyboard codes may be a bit of a mystery. These codes, found in the Appendix B of the blue CP/M 80A manual, or Appendix F of the new CP/M 80B manual, perform a number of interesting tasks on the screen of the QX-10. Those of you who have to "install" store bought software also will have to deal with these codes. I got into looking at these because someone was having problems with an installation. Here's an introduction to their use.

First, the new manual's Appendix F does not give decimal code numbers and this makes it more difficult to use the codes. The older manual does give the decimal codes and these have not changed. Just copy the decimal codes to your new manual.

When the codes are used in BASIC we use a statement like:
PRINT CHR$(code).

If there are two codes for a given function the statement is:
PRINT CHR$(code1) + CHR$(code2).
Here are a few of the more useful codes:

a. **Clear Screen** — Using decimal 26 or hex &H1A clears the screen of all garbage and places the cursor at the top left of the screen.
b. **Home** — Using decimal 30 or hex &H1E places the cursor at the top left, but does not erase the screen contents.
c. **Address Cursor** — This is more difficult. This function places the cursor at a particular row and column. In BASIC or Pascal it is best to write a function or procedure to handle this task since there is a sequence of four codes to print. In BASIC first define a function:

```
DEF FN RC$(R,C) = CHR$(27) + CHR$(61) + CHR$(31 + R)
+ CHR$(31 + C)
```

This function is used to place output at a particular place on the screen. For example:
PRINT FNRC$(10,15);"x"
places the letter "x" in row 10 at column 15.

d. **Start Blink Field** — This starts a field where every character blinks. Decimal 27,94, are used as:
PRINT CHR$(27) + CHR$(94)
e. **End Blink Field** — Decimal 27,113.
f. **Reverse Video** — Decimal 27,106.
g. **End of Reverse Video** — Decimal 27,107.

Here's a program listing that fills the screen with x's and blinks and reverse videos a short field. From this example you should be able to go through the Appendix and use most of these codes in designing your output to the screen in an interesting way.

Note: This program should be run under CP/M.

```
100 DEF FN RC$(R,C)=CHR$(27)+CHR$(61)+CHR$(R+31)+CHR$(C+31)
110'
113' now first clear the screen
114'
115 PRINT CHR$(26)
117' fill the screen with x's
120 FOR I=1 TO 24
125 ' use the RC$ function to place the cursor at each row
130 PRINT FNRC$(I,1);
140 FOR J=1 TO 80
150 PRINT ;"x";
160 NEXT J
170 PRINT
180 NEXT I
183 '
184 ' these two lines start the blink and reverse field
185 ' and then end the field
190 PRINT FNRC$(10,15);CHR$(27)+CHR$(94);CHR$(27)+CHR$(106);
195 PRINT FNRC$(10,30);CHR$(27)+CHR$(113);CHR$(27)+CHR$(107);
199' this gives us time to see what we did
200 FOR K=1 TO 10000
210 NEXT K
215 PRINT CHR$(26) ' clear screen again
220 END
```

Software Review

Superfile

by John L. Hirsh

SPEC SPOT

Product: Superfile
Type: A free-format database
Computer: For some CP/M and MS-DOS computers
Operating System: CP/M, MS-DOS
Required Peripherals:
Price: $195.00 + shipping
Ease of Use: Easy
Performance: Excellent
Documentation:
Summary: Two 30k programs. One, SF, searches out text using key words. A second, SUP, splits files, imbeds control characters in text, sorts and merges.
Manufacturer:
FYI Inc.
4202 Spicewood Springs Road
No. 114
Austin, TX

Superfile is a sort of electronic finger that points out text in which keywords are located. It is a mild - mannered, personal data base manager that retrieves and cross - references information stored as entries in a file.

Superfile can handle notes and pieces of paper from interviews, government documents, corporate reports, articles, and book chapters. The program does not care if the text is English, French, Chinese, bureaucratese or mathematics.

Superfile, like big database managers, searches key words using "and", "or", or "not". It can search 250 floppy disks or 25,000 single - spaced pages of text on double-sided, double-density disks of 376k each.

Superfile's also an easy CP/M program for someone who is not a computer whiz. You don't have to write complicated commands as you would for DBaseII, the industry standard. What is more, it runs well on the QX-10 and VALDOCS - generated files even though it wasn't written for the QX-10 / TPM system.

The reason for this is that it was written in Converse, a derivation of the snappy Forth language, by William B. Brogden. He designed it to solve a problem.

The problem is that many personal computer systems store files with such names as ONE.TXT, TWO.DOC, or NEWLTR.DOC. Most people, without some sort of logging system, tend to forget what such filenames mean after a couple of days.

Superfile doesn't need file names. It can take you right to text. Sort of like having a personal librarian pointing out those parts of books or magazines that you need.

Now, some people might say that VALDOCS, with 16-word filenames, actually solves the same problem Brogden solved with Superfile. The VALDOCS 1.xx series can tell you what specific files are on a disk and can take you right to that file.

Superfile, on the other hand, will tell you that there are, for example, 40 entries of text in 255 disks in which there are one, two, three or even 64 key words. It can tell you where in the 255 disks the 40 entries are. It will also pick out the text, print it out on the monitor or printer, or save it to disk.

The Superfile process begins when you collect information and save it on a disk. The data come from notes taken during an interview that are later typed up and stored as a file or story. They come from notes taken on the scene with an HX-20 or PX-8, subsequently uploaded to a QX-10. They come from dialing up and downloading information from a big mainframe computer (like Dialog in Palo Alto, California).

For the program to work, you have to spend about 15 minutes marking each of the stories or files with certain indicators. Selecting key words or phrases up to 64 alphanumeric characters long can be tedious. But obsessive - compulsives, the people for whom computer programs may have been designed, might not mind. You can always add key words and information to the data base you're creating.

You can use the program simply to find related text from different files. But its strength is its ability to help you discover serendipitous relationships among key words (leading to text matter).

When Superfile boots up, it reads in the files on which the indicators are placed, making a dictionary out of the key words. Dates used as key words will be listed chronologically in the dictionary. Linking dates, locations and people is useful for lawyers and non-fiction writers.

Brogden and his partners suggest that you print out the dictionary and save it as a file in a manila envelope.

Now when you want to look for information or search the data base, the program asks for key words or search terms. You can use one key word or search term or any combination of terms linked by and, or, or not. "And" restricts the search, "or" broadens it and "not" excludes.

If it finds the key words, Superfile lists the number of "matches' and then asks what is to be done with the results. You can show the entries on the screen, print then out or save them to disk as the rough draft of the story. A rough draft can be worked over with the VALDOCS text editor. The final product can be printed out or transferred over a modem.

If you misspell a key word, the program says "Not recognized. These are close." It then prints a partial key word list on the screen. If the information is not on the disk that is in the computer, Superfile gives the name of the disk on which the information is located. Once the disks are swapped, the program takes you right to an entry. This program is not without criticism. Computer columnist Franklynn Peterson, a former journalist and freelance writer, said in a private conversation that it would be easier and faster to store notes and documents in manila folders.

That might be the case for small research projects or investigations. But why spend time trying to recall intriguing relations among people, events and places out of biased human memory when you can use a more efficient form of extrasomatic memory?

Peterson also said there would be a lot of disk-swapping. I don't think that is such a terrible hang-up.

Superfile comes with additional utility programs. I've used one, "Split Files," after transferring information off Epsonline, the Epson Special

Interest Group on CompuServe. Split Files can take a long file and divide it into smaller files — sort of like taking a long manuscript and dividing it into chapters.

Other utility programs let you mass rename files, or imbed invisible control characters in your text. Yet another utility can sort entries alphabetically or numerically — a handy tool for bibliographies or mailing lists.

The documentation or set of instructions is easy to read. It's even won an award for clarity. But I would have liked to see more examples. I think Brogden and his partners should publish the letters they're getting from users as an addenda to the documentation. People need to see how others are using the program.

Superfile can be purchased for $195 from most computer stores. I was able to have the Computer Center (on 3736 Bee Cave Rd. Suite 4 in Austin, TX., 78746) get the program ready to run on the QX-10. The program had been configured for a Kaypro. I paid an additional $10 for time used to configure the QX-10 and $5 for UPS shipment to Milwaukee.

FYI, incidentally, has written and is selling FYI 3000, a $395 program for MS-DOS, PC-DOS and the Kaypro CP/M systems. The program turns every word of text into a key word, thereby saving the 15 minutes a Superfile researcher would take making up key words. The program includes an "omit list" to keep such words as "said", "am", or "was" from being used as key words.

FYI 3000 is copy protected, which protects the company from piracy. It also means a dealer can not transfer the Kaypro version to CP/M or TPM.

That is a real shame. FYI 3000 in combination with QX-10 and VALDOCS would really fulfill the goal of the QX-10 as a "mind-expanding" tool.

Mr. Brogden and his partners at FYI have not advertised Superfile. And they have no plans to advertise FYI 3000. Their sales depend on reviews as well as word-of-mouth recommendations from academics, lawyers and writers.

Superfile may not be faster than a speeding bullet. It may not even be able to leap tall buildings as a single bound. But it's a tool that shouldn't be overlooked.

▲ ▲ ▲

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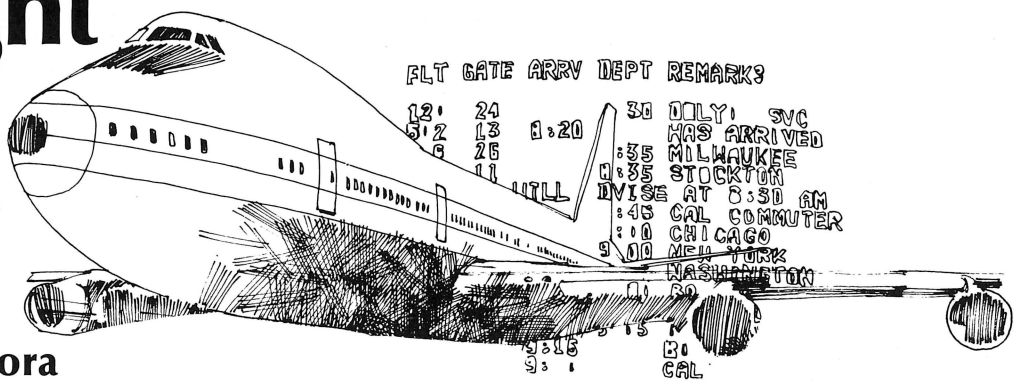
Softwear Review

The Flight Planner v3.0



by Ron Spatafora

SPEC SPOT

Product: The Flight Planner v3.0
Type: A flight planning tool
Computer: QX-10
Operating System: CP/M A or B
Required Peripherals: 1 disk drive
Price: $99
Ease of Use: Very easy
Performance: Excellent
Documentation: Very good
Summary: This is an excellent flight planning tool whose capabilities in planning and editing have been well thought out.
Manufacturer:
E-Z Flight Software
12021 Wilshire Blvd.
Suite 172
Los Angeles, CA 90025

Flight Planner comes on a 5.25" disk with six files on it:

PLAN30.COM	(Flight Planning Program)
PEDIT.COM	(Aircraft Editing Program)
INSTALL.COM	(Installation Program)
INSTALL.DAT	(Installation Data File)
AIRCRAFT.DAT	(Aircraft Performance File)
FIX.DAT	(Airport and Navaid File)

Flight Planner does not generate conventional FAA flight planning form. Rather it is a data base program which you enter navigation, aircraft, meterological and flight profile information which is then calculated and produces a flight report output similar to those found in general aviation or flight schools. The report contains all facets of flight information necessary for VFR flight (note VFR only!): Magnetic Course and Heading, True Course, Distance between way points, True Airspeed and Ground Speed, Estimated Time Enroute, Fuel burn, and Radio/Nav log info. The first step in using the Flight Planner is to select the aircraft you intend to use. Access to the aircraft data base is thru the menu in the FPLAN file or select FPEDIT at the A> prompt. Here you will select one of the 10, or so, aircraft predefined, or build up a data base of your particular flying machine. If the aircraft is in the predefined list, do not just accept the data base as accurate! Check it! I selected a Cessna Turbo 210 for my big hop, and when I got the final report, I discovered that my little "bug smasher" had consumed 763.7 gallons of fuel on a 4.46 hour flight (about what you'd expect from a LEARJET!). Larry Shilkoff (the author) and I had a few chuckles over that. Point of interest, Larry was and is a great help if you run into a problem; however I don't see anything too complicated about the program, and feel even the most basic of students will find the manual and program easy to use (I wish I had it when I was a student pilot). After you define your aircraft you will need to select your route and define the navigation aids you will use. These aids may be VOR or any radio navaid as well as ground fixes (airports or land features).

To build the Navaid data base you will input into the latitude, longitude, altitude and up to five letters to serve as a designator for the fix. That's all you need to setup the navaid data base (note the reason Flight Planner doesn't come with a predefined Navaid data base is it would occupy a 120k+ file just for the VOR stations!). Larry and I have entertained the idea of offering a disk with those stations we have entered for a user fee. All data is stored permanently in the FIX.DAT file and may be edited at anytime, so you will only have to enter a particular fix once (assuming airports and rivers don't move).

Time for the real part of flight planning. Select "B" at the main menu. That starts the beginning of the trip. First select the aircraft code (the AIRCRAFT.DAT file holds up to 999 aircraft types). Next enter the letter identifier of the first fix (the airport of takeoff). Now put in the identifier of the second fix. Something missing? You bet, now you enter the direction and speed of the winds aloft. Also, you enter the cruise altitude and ambient temperature for that leg. At this point you can override the Aircraft data base and select the fuel consumption and TAS for the climb out, but it's not necessary, as Larry's Flight Planner has an algorithm for this built-in, so you just hit two carriage returns for the default values in the AIRCRAFT.DAT file. All subsequent legs are entered using the same steps. When you get to the last point (airport of destination) you type BDONE<RET> and then define one last parameter, your rate of descent. That's all... much faster than the ol' E6b computer! Now for the report. Select the "P" option in the main menu. This will produce a high quality, easy to read and navigate printout of your trip. The Author comments in the beginning of his manual that Flight Planner takes only

```
                    FLIGHT LOG FROM LUE   TO DET
                    AIRCRAFT: CESSNA T210L

 ____________________________________________________________________________
 ::FIX::FREQ::::MC::MH::ALT:::WDIR::WVEL::TAS::TC::WCA::DIST:::GS:::ETE::::FUEL:
 :LUE   118.70:-----------------------------------------------------------------:
 :------------: 37  36  7500  230    7    107   42  -1  473.9  114   156    415.7:
 :STL   118.50:-----------------------------------------------------------------:
 :------------: 71  78  9500  180   15    116   73  +7  197.7  119    65    175.2:
 :IND   120.90:-----------------------------------------------------------------:
 :------------: 45  50  5500  190   30    180   43  +5  220.3  204    65    172.8:
 :DET   121.30:-----------------------------------------------------------------:
 :____________:                                        891.9         4:46   763.7
BEGIN DESCENT TO DET   31 NM OUT FOR 550 FPM DESCENT
DESTINATION AIRPORT ELEVATION = 626 FEET
BEST-RATE-OF-CLIMB SPEED = 97 KIAS

 FIX       LATITUDE          LONGITUDE
LUE        32.5100            96.5100
STL        38.4400            90.2200
IND        39.4300            86.1700
DET        42.2400            83.0000
```

A sample print out of a trip from Love Field (Dallas) to Detroit.

minutes what took a half an hour to several hours with pencil and E6b. I'm only a 1000+ hour instrument pilot, and can attest to Larry's claim.

I found it easy to use and quite accurate. The flight path is based on the rumbline line algorithm and is therefore easy to relate to a WAC or Sectional chart. This program is not to be used for anything other than VFR flights and of course should be checked afterwards for safety's sake (remember there "... are no old, bold pilots."). A short coming of the current version is the lack of one feature; to store a flight plan for recall at a later time. The current version permits a printout only during the current session. The author is already planning a revision to add this feature. The next improvement from E-Z Flight Software is a multi-aircraft comparison planner, that is you plot a trip with a specific aircraft, then change the aircraft code designator to see what effects a different aircraft's performance will have on speed, range and rental $$$. For $99, it's a great program and a must for students and instructors (not to mention us weekend warriors).

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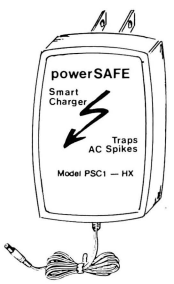

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News Notes

Con't from page 19

printer off and re-booting with the printer turned off was the only way I could get into the SETUP menu and change the printer characteristics to the RX. This is not a problem or bug with Valdocs, but mentioned here as a note, to check what printer you have your Valdocs systems disks set for. Keeping a note on the label sure helps.

VALDOCS MAIL Over MCI

Con't from page 23

comma is now held for 8 seconds vice the default of 2 seconds. The next thing you do is change the computer telephone number in the Address Book to read as follows:

xxxxxxx,xxxxx3013677890

The first 7 x's represent the 7 digit local access number for MCI; the next 5 x's represent an individual's ALD authorization number; the last 10 digits are the phone number being dialed. All of the above totals 23 alpha-numerics which fit the 23 such spaces in the computer number field of the address card. Since the field on Address Card has only 23 spaces and MCI normally requires, minimally, 26 digits, you must leave out all punctuation except the one comma representing an 8 second pause after the local access number for ring, answer, and provision of a tone for signaling readiness for the rest of the numbers which follow.

Complicated? Not really, but you should remember that the Hayes will have to be reset if it is turned off. If you keep yours turned on, there should be minimal problems in that respect. If not, you will have to re-address the Hayes each time you wish to use ALD in order to set the comma register to 8 seconds.

Procedure for SPRINT, etc., would be similar; just remember not to exceed 23 alphanumerics in the computer telephone number field provided on the Address Card. Likewise, if your modem emulates a Hayes, just identify the comma register — the same command set given for the Hayes most likely will work. Check your manual to be sure.

▲ ▲ ▲

Con't from page 16

Home Accountant Plus Software Review

FX-80, the program automatically set the printer into compressed mode to provide for 138 columns, a very nice feature.

THE PRINT CHECKS/ACTIVITY REPORT MODULE

This module will allow you to print out all of the transactions that have been entered into the system. You can specify a certain item as print criteria, for example, you can print out only those checks written on a certain date.

This module will also generate an income and expense summary giving percentages between actual and total income. You have the ability to tailor your reports to fit your particular needs.

The documentation for this module also indicates it will allow you to print checks on specially pre-printed checks. The manual also states that "The program will also print out the address of the payee as well as a memo on the check and... check stub." This would provide you with the ability to put a check in a window envelope and mail it off. It would also give you a record of where you mailed the check. Unfortunately this is not available for the QX-10. To quote a letter I received Chris Kormann of Continental Software, "We have no plans at this time to add this feature... to the Epson QX-10 HOME ACCOUNTANT."

THE FORECAST MODULE

The Forecast Module was developed to help you evaluate investment strategies and develop future financial plans. Three kinds of forecasts may be produced: 1) Value of Future Investment, 2) Monthly Amount for Future Goal, and 3) Future Budget Planning. All of these programs need two assumptions — future inflation rate and future rates of return on investments. With these assumed values, you can determine what the value of an investment will be in the future, how much you must set aside to reach a needed dollar amount years ahead, and lastly, what an assumed inflation rate will do to your budget up to 100 years in the future.

EVALUATION AND SUMMARY

THE HOME ACCOUNTANT Plus is an excellent program for the person who wants an extremely detailed home financial package. It is well written and will encompass most any requirement you may have. The manual is fairly well written, although it does have some areas that seem to be written by an accountant instead of an instructor.

The package contains a form to mail in with $20.00 that entitles you to an extended warranty. This "extended warranty" entitles you to several things: 1) the warranty is extended from 90 days to 1 year, 2) telephone support, 3) Program enhancements free for up to one year, and 4) free disk replacement if the program disk becomes defective within the year.

I do have a couple of concerns about THE HOME ACCOUNTANT Plus extended warranty. If you should encounter a problem, be prepared to pay for the long distance call to California, there is no toll-free number to call. And pray that you don't get put on hold for 4½ minutes like they did to me. The program enhancements referred to may be free, but on every point of enhancement I inquired about, I was told "the authors are working on higher priority projects" and "that is not planned in the foreseeable future."

Although THE HOME ACCOUNTANT Plus is an excellent program, it is written in MBASIC. Consequently, it is extremely slow and cumbersome. And since no plans are being made to bring out a compiled version for the Epson, expect it to stay slow. I moved modules and data to RAM, but even this did not speed up the process.

If you need a comprehensive home accounting package, THE HOME ACCOUNTANT Plus is excellent.

If what you need is a good program to keep track of your finances — how much you're making versus how much you're spending — I recommend you pull out your PeachCalc and set up a nice spreadsheet. Or, wait until VALDOCS comes out with its own spreadsheet, and then you can do it all under one roof.

For more information on "The Home Accountant Plus" contact Continental Software, 11223 South Hindry Avenue, Los Angeles, CA 90045.

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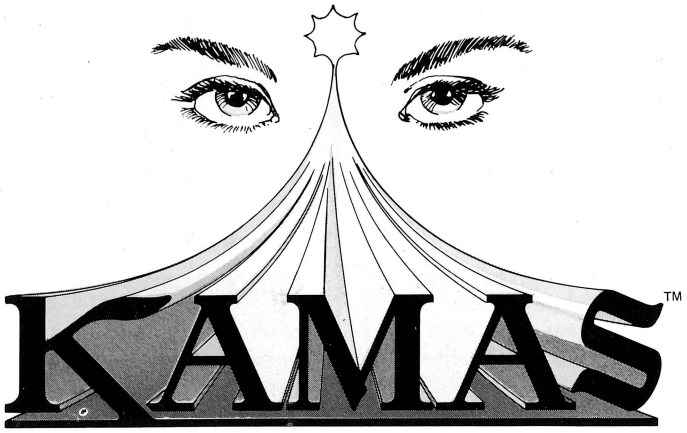

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ToolRoom. Modified Epson HX-20 with expanded internal memory. Will calculate, format, store and drive paper tape punches directly for NC machinery.

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STANDARD FEATURES	PRO			ANCHOR 1200	US ROBOTICS PASSWORD	NOVATION SMARTCAT+	HAYES STACK
300/1200 Baud (212A)	✓	✓	✓	✓	✓	✓	✓
Intelligent Microprocessor	✓	✓	✓	✓	✓	✓	✓
Tone and Pulse Dialing	✓	✓	✓	✓	✓	✓	✓
Hayes Command Compatible (Works with Smartcom™)	✓	✓	✓	✓		✓	✓
Additional telephone jack with exclusion switching	✓						
Analog loop back self test	✓	✓	✓				
Self Test at Power Up	✓		✓				
Call Progress Detection (Busy, Dial Tones, Trunk Busy, etc.)	✓		✓				
Speaker and External Volume Control	✓	✓	✓				
Full Complement of Status Lights	✓	✓					
8 Switch Selectable power-up defaults	✓	✓					
Adaptive Dialing	✓						
Auto Redial on Busy	✓						
Ergonomically designed easy to read front display panel	✓						
Internal Stand-Alone Power Supply	✓						
Built in Real Time Clock/Calendar	✓						
Help Command	✓						
300 baud connect while maintaining 1200 baud RS-232 link	✓						
EXPANDABLE OPTIONS							
Automatic Receiver Buffer	✓						
Automatic Transmit Buffer	✓						
On-board Personal/Business Directory	✓						
Buffer, Expandable to 64K	✓						
Auto Logon Macros	✓						
Auto message transmission to groups of numbers	✓						
Records call duration	✓						
12-character Alphanumeric Display	✓						

*Comparison made by Prometheus on the basis of the best information available to Prometheus at time of printing.